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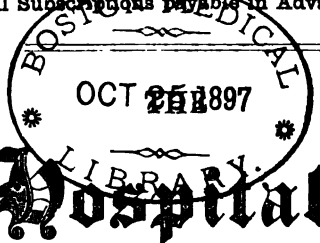
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**Richmond, Whitworth, and Hard-
wicke Hospitals.**

CLINICAL LECTURE

By DR. CORRIGAN,

Physician in Ordinary to the Queen in Ireland, &c. &c.

Permanent Patency of Aorta, of several years' duration.—Recent endocarditis supervening on it.—Treatment, rules of—Importance of rest.

We have a case before us to-day full of interest. The patient, J. H., a young man, aged 24, died suddenly last night, in a fit of angina. I will first draw your attention to the *post-mortem* appearances, and then make such observations as the case appears to suggest.

The lungs are healthy, or somewhat oedematous, but quite free from any appearance of pneumonia or pulmonary apoplexy. The heart is of immense size—at least four times the healthy bulk; the left ventricle greatly enlarged; its parietes healthy in texture, and of at least double their natural thickness. The pericardium contained some serous fluid, but no lymph, or sign of pericarditis. As the case had been marked during life as permanent patency, the first examination was directed to this point; and the heart having been removed from its attachments, the aorta was passed up on the nozzle of the water-cock in the dead-room, and while held securely there, water was turned on. The water flowed freely downwards through the aortic orifice into the ventricle, and passed, through the incision made in the ventricle, into the basin beneath, showing that the aortic valves did not perform their function. The action of these valves, being purely mechanical, is perfect after death, if they are sound. The diagnosis being verified, the ventricle was then opened by a longitudinal incision extending from apex of ventricle, and carried between two of the aortic valves into the ascending aorta and its arch; and the following are the

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appearances:—The aortic valves are thickened on their edges, and fringed with red lymph; and immediately under one of the valves is a small aneurismal pouch, about the size of a very small hazelnut, evidently of old standing. The triangular spaces which should exist between the valves are no longer apparent, but are filled up with a tough ligamentous deposit, extending across from valve to valve, which has evidently been lymph of old standing, and which has been undergoing a process of contraction, for the valves are dragged together by this contracting tissue, so that two valves look like one; and I have seen, in some cases of very old duration, the common point of attachment of two of the valves give way, and this ligamentous deposit continuing to hold the edges united, after the point of attachment to the aorta has ceased to exist. The two valves then seem, at first sight, to be only one, and might lead to the supposition that there had been only two aortic valves.

It is quite evident from its appearance, paleness, toughness, and firmness, that this ligamentous tissue tying together the aortic valves, and impeding their functions, has been of long duration, and that the other morbid appearances which next come under our observation are of quite a different and of recent date. I have already noticed the fringe of red lymph on the old thickened edges of the aortic valves. In addition to this there is an extensive deposit of lymph on the inner membrane of the ventricle, constituting one of the best specimens of recent endocarditis I have seen for a long time. This patch of lymph covers the whole anterior surface of the mitral valve, from the attachment of the cordæ tendineæ, extending upwards along the lining membrane of the ventricle, until it reaches the roots of the aortic valves. This patch is fully an inch square, consisting of tolerably firm lymph, of a deep pinkish-red colour, pulpy on its surface, and irregular, looking somewhat like the pile of very coarse velvet. It is firmly adherent to the adjacent serous membrane, but still can be detached from it with the nail. The lining membrane of the ascending

A

aorta, you observe, is deep red through nearly its whole extent, with two or three small ecchymoses near the valves, a few patches only of the internal membrane of the vessel retaining its healthy pale colour.

We have here, then, before us two pathological formations, evidently of very different dates—one of old standing, the other of recent occurrence; and we have data which enable us to fix their dates, and to give us other very useful information.

J. H., aged 24, a labourer, of well-built frame and strong muscular development, was admitted into hospital on the 16th November. About two months before, he had been under rain the whole day, and, a few days after, began to suffer from cough, and occasional palpitations with repeated rigors, against which, however, he bore up until the evening of the 14th, when he was attacked with angina, or, as he describes it, "sudden suffocation in his breathing." This left great debility behind it; he was obliged to give up work, and came into hospital, as already noticed, on the 16th—next day but one. Seven years ago he had an attack of rheumatic fever, and in the course of it was cupped and blistered over the region of the heart, the marks of which are still to be seen; but from that period up to this present illness he continued at labouring work, without suffering any inconvenience. Debility and fits of angina were his prominent symptoms while in hospital, requiring frequent doses of stimulants and brandy to revive him; the action of the heart being so weak, notwithstanding its enormous size and thick parietes, as to be unable to propel the blood into the radial arteries when the arms were held up, the pulse at the wrists then ceasing. Slight cedema of the legs occasionally appeared, but no symptoms of congestion ever showed themselves; and on the 3rd December he died in a fit of angina, having been seventeen days in hospital.

The symptoms of permanent patency were well marked, and I need only briefly recall them to you. They were, extensive dullness on percussion over the precordial region, corresponding with the increased size of the heart; double bruit over the middle and lower sternal region; single bruit in carotid and subclavians, with well-marked fremitus in these vessels in both sides of the neck, best felt by laying the thumb longitudinally in the supra-clavicular space over the subclavian arteries, where visible pulsation was also most strongly marked.

The first instructive point in the case is, that we are able precisely to mark the dates of the two pathological states in the heart. The older deposit of ligamentous tissue in connexion with the valves, we can have no doubt, took place seven years ago, in the attack of rheumatic fever; and we learn from it how little may mere mechanical alteration, when not of great degree, interfere with the action of the heart, and even long-continued bodily exertion. In this case, for seven years, the

man followed the occupation of a labourer, and his able muscular development fully bore out his own statement, that during that long period he had suffered no inconvenience. I recollect an instance of this disease, in which the person labouring under it was the medical officer of an extensive country dispensary, the laborious duties of which he continued to discharge for fifteen years, with very little inconvenience, and eventually died from another cause.

When the endocarditis, however, in our patient's case, which had been hanging over him, probably, from the period of his wetting, set in with full intensity on the 14th inst., then came with it an attack of angina, and suddenly weakened action of the heart; and under these repeated attacks, with a continuing weakened action of the heart, he at length sank, and died after seventeen days.

We thus from this case learn this important lesson—that in the sudden exacerbations that will sometimes occur in valvular diseases, we have to deal with some vital derangement, rather than with the mere mechanical defect. The mere valvular defect in the case before us had undergone no change; but on endocarditis setting in, arising partly from the wetting, but excited also by the previously-existing morbid deposit, this vital derangement, added to the prior mechanical defect, was sufficient to cause the alarming symptoms under which the patient sank. Endocarditis is at all times a most dangerous and suddenly-depressing disease, but the more so when engrafted on previously diseased tissue. It may be asked, why did the action of the heart become suddenly so weak, and remain so notwithstanding all the stimulants exhibited, although its muscular tissue seemed healthy as usual. This phenomenon appears to me to be in accordance with what we observe of muscular tissue in analogous instances. When the pleura costalis is acutely inflamed, the intercostal muscles will not act. When the peritonæum is inflamed, in most cases the muscular fibres of the intestines will not propel their contents; and when a joint is inflamed, the muscles in connexion with it will obstinately refuse to act, no matter with what efforts the patient may attempt to command them. Thus it is, I believe, where the lining membrane of the aorta or of the left ventricle is acutely inflamed. The muscular fibres of the left ventricle will not act with their accustomed force; and if the inflammation be sudden and acute, and over a great surface, as in this case, involving aorta and lining membrane of ventricle together, the action will become so weak as to cause syncope and death.

What are the lessons as to treatment that we learn here?

1st. That no matter what may be our opinion of the extent of endocarditis, we must meet the depression with stimulants and opium, and particularly with a full anodyne at night; and next, that if we can obtain a rally, we shall, as soon as possi-

ble, superadd local bleeding, blistering, and the use of mercury, to check the effusion of lymph, and to promote the absorption of what has been poured out.

In connexion with the treatment of pericarditis and endocarditis in the sub-acute stage, I have now a few observations to make on one of the most important agents in their cure—namely, rest and abstinence from stimulants.

If a joint has been inflamed, a patient is quite satisfied, because he sees the inflamed joint before him, and because the part is endowed with animal sensibility, to keep it at rest for weeks or months. He understands perfectly that if he do not, deformity, and perhaps disorganization, will be the result; but the necessity of the same rule does not often come sufficiently forcibly to either patient or physician in convalescence from endocarditis or pericarditis, because the part affected is out of sight, and is not endowed with animal sensibility; and thus, after, perhaps a short time, patient and physician both become impatient, and instead of rest and mild nutrition, tonics, wine, strong food, and exercise are had recourse to, and with the naturally to be expected bad results. Remember how long it will take to bring round an inflamed joint, even when we can give it perfect rest. Remember that we can in no case give the heart perfect rest, and that it is the more necessary, on that account, to give it as much as we can. Let your patient lie for weeks on a sofa or bed, in convalescence for pericarditis or endocarditis. Always bear in mind that you have, as it were, an inflamed joint within to deal with. Abstain from stimulants, or give them most sparingly. Keep the action of the heart as quiet as you can during the day, and give an anodyne every night, and you will see recoveries that will occasionally surprise you.

ON ULTIMATE FACTS IN PHYSIOLOGY, THEIR IMPORTANCE AND PROPER POSITION.

By PROFESSOR ALISON,
Edinburgh University.

The first object of this paper is to show, in opposition to some even recent physiological writers—*e.g.*, Humboldt—that the language used by Cuvier, to express our conception of the elementary principles of Physiology, is strictly in accordance with that of the highest authorities in the other departments of philosophy, both physical and metaphysical. Cuvier described living bodies as those which originate on the earth's surface by *generation*, depend on *nutrition*, and terminate or lose their distinctive properties by *death*. By careful observation these terms are found to apply to a great variety of objects existing around us, possessed of very peculiar properties, and always of *temporary duration*. They are *exceptions* to those more general laws which rule the rest of the universe ;

and we prefix a precise and strictly scientific meaning to the terms Life, Vitality, Vital power, Vital action, when we apply them to these assemblages and successions of phenomena. In like manner we draw a proper line of distinction between organic and animal life, when we apply the term *organic* to those vital phenomena only which, so far as we see, are unconnected with sensation or other mental act; and the term *animal* to those vital acts only, in which sensation or some other mental act is essentially concerned.

We ought not to expect greater precision in the terms necessarily employed in the early stages of any scientific inquiry. This, indeed, is quite in accordance with the important observation of Bacon and of Stewart—that the *first steps* in a science are always *negative* propositions, establishing its distinction from all other sciences.

Next, I consider it important in the present state of Physiology or of Biology (for the latter term is more strictly applicable, as Dr. Whewell has observed, but not in sufficiently general use for the present purpose) to illustrate by a short commentary an observation of the late Sir W. Hamilton which goes somewhat further, and may even appear paradoxical, but which I believe to be strictly and peculiarly applicable to Physiology—*viz.*, that “much false and presumptuous reasoning, discreditable both to philosophy and theology, would be abolished by the recognition of our impotence to comprehend what, however, we must admit” (see *Essays on Philosophy*, by Professor Frazer, successor to Sir Wm. Hamilton in the University of Edinburgh, p. 194). This proposition, of course, requires limitation, otherwise it might be held to sanction the absurdity, “*credo quia impossibile est.*” But this objection appears to have been anticipated and satisfactorily met by Dr. Brown, late Professor of Moral Philosophy in Edinburgh, in applying to mental phenomena the principal statements of Father Baffier, and many others, as to the characteristics of certain first principles or fundamental truths in all Science, which, as Dr. Brown explains, are known to us only by Intuition—our minds being, according to the expression of Victor Cousin, only spectators in regard to them—but our belief in which, when fully brought before our minds, is *immediate, universal, and irresistible*. When we are conscious of such articles of belief taking possession of our minds, it is, as Dr. Brown has stated, the first principle of the Scottish School of Metaphysics—*i.e.*, the metaphysics of common sense—that “we are *not at liberty* to reject them.” We are bound by them, as the mathematician is by the axioms and definitions of Euclid, to which, as Burke expressed it, he virtually “submitted at the setting out.” “If we are deceived in them, says Reid, we are deceived by Him that made us, and there is no remedy.” But if any inquirer is unwilling to admit their authority, the only true alternative is, that he must abandon the inquiry; as being

one which we know of no other means of prosecuting than those, which he thus declines to employ. (See Stewart's Works, vol. vii. p. 12).

The dependence of Physiology, and especially of those departments of it which are peculiarly animal (or partly psychological), either simply and exclusively, on such principles of Intuition, or in matters of observation as to which our minds appear, on the most careful examination, only to be *spectators* of the circumstances in which they occur, and of the power which they assert, is certainly of paramount importance; because it is generally admitted that these are the phenomena in Nature, on which the science of Natural Theology, or the argument *a posteriori* for the existence and attributes of our Maker, is most surely rested; and it is by regarding them in the view most strictly scientific that we are to judge of the footing on which our Science stands, to a Religion which depends essentially on the evidence of certain Miracles for its authority over the human race. In fact, if the above be a fair statement of principles, we have it now in our power, by a strictly scientific view of this department of natural Science, to explain the nature of the change which must have been wrought on the laws of nature, on the earth's surface—within a distance of time which Physiology and Geology enable us, within certain limits, to define—when Life, under the influence of Light, was engrafted on inorganic nature; and again, of that which was wrought when Mental acts were engrafted on life. In both cases, according to the simple and sublime expression of Cowper, the Author of our nature must have "called on things that were not, and they came." Then, and not till then, the whole of the machinery must have come into play which had been designed and arranged for supporting the great Chemical Circulation, essential to the life and organization, first of the vegetable and then of the animal world. The *tourbillon vital*, still acting around us, is thus, so far, brought within our comprehension; and it is now right to pause and reflect how far, in accordance with other departments of science, we are to expect farther information—whether sudden or gradual, partial or general, once effected, or still frequently repeated—is immaterial to the present consideration.

These changes must have been of the nature of Miracles—i. e., it must have been by *very partial exceptions* to the previously existing laws of matter, that the first "germs of vitality," and the first organic structures were produced, by the development of *Cells*, out of the Carbon and the elements of Water, with smaller proportions of other elements, which had previously taken only (as they still take much more generally) the form of the *simpler, crystallizable, and much more permanent* compounds of the same elements, which still exist in the atmosphere and surface of our globe. And those who have attended to the infinite amount and variety, both of chemical affinities and molecular attractions, *peculiar to the living*

state, and essential to all the vital changes that go on, from the first origin of the simplest vegetable structures, till the death and decomposition of the most complex animal structures, which they directly or indirectly nourish and support—molecular and chemical changes equally vital as any muscular contractions—to which, indeed, all muscular contractions are only subservient, often only auxiliary,—must perceive that provision for all this material of various sciences has been made by the introduction of certain temporary and *exceptional changes* on the *attractions and affinities* to which the matter resting on the earth's surface is, so far as we know, permanently liable. It is thus that the support, and we may say the *eternal reproduction* of all these cellular, fibrous, membranous, but *never crystalline* and *always temporary* organic structures, constituting the whole of the kingdoms of animated nature, are provided for out of a small portion only of the earth's atmosphere, under conditions as to temperature, pressure, and other contingencies, which still further limit the phenomena of Life. Such *exceptions* to the previously existing, and still subsisting laws of matter, are, at least, equally entitled to the appellation of Ultimate Facts, or First Principles in Physiology, answering to the conditions required by Cuvier, of such principles, as the principle of Common Sense or of Intuition, illustrated by Reid, Stewart, and Brown, is to that of Ultimate Fact in the Philosophy of Mind; or as the principle of Gravitation, or the Inertia of matter, in the Natural Philosophy of Newton. The laws and conditions, and possible variations of these exceptions it is our object to investigate, and to trace throughout the whole of Nature, simply as the results and indications of the will of the Author of nature; and in regard to them, we see, at present, no reason to think that we shall ever go farther.

(To be continued).

CASE OF CONTUSED WOUND OF THE FOREARM.

AMPUTATION PERFORMED DURING SPREADING
GANGRENE—RECOVERY.

By A. P. BANON, F.R.C.S.I.

Surgeon to Jervis-street Hospital, &c. &c.

A boy, aged 14 years, was admitted into the Jervis-street Hospital on the 2nd December, having sustained a severe lacerated and contused wound above the elbow-joint and extending quite round the limb, under the following circumstances:—He had been employed in a paper-mill, and having gone to his work between five and six o'clock on the morning mentioned, he was engaged as usual in attending to the felt as it passed between the rollers, and having unconsciously laid his hand on this substance when the machine was revolving with great rapidity, his arm was forcibly dragged between the rollers up to the elbow, at which region the soft

parts were much more bruised than in the forearm near the wrist, owing to the increased pressure of the machinery as the bulk of the arm increased. The mill was immediately stopped and the rollers raised, so as to permit of the arm being extricated; the boy was then taken to the nearest practitioner, who resided at Tallaght, by whom the wounded parts were brought together by adhesive straps and the arm bandaged. He was then sent to hospital, where I saw him about eleven o'clock on the same morning. After a careful examination, assisted by one of my colleagues, I came to the conclusion, that the injury was confined to the soft parts, and that the bones of the arm and forearm were unbroken. The bandages, &c., were removed and the parts laid on a well-padded gutta serena splint; as he complained much of pain, he was ordered a full opiate. On visiting him next morning, I found the parts presenting a very unfavourable appearance, the lips of the wound looked swollen and unhealthy, and the skin extending downwards over the joint, presented the appearance of commencing gangrene; large bullæ containing the usual discolored fluid, had formed in the neighbourhood of the joint and down the forearm, which was cedematous and swollen. The temperature of the parts was much reduced, and the boy complained of intense pain; opium, in full doses, was prescribed at intervals of three hours, until relief from pain should be obtained, and the arm directed to be covered with a large poultice. In the course of some hours the pain subsided, and the boy got some sleep, but arterial hæmorrhage now, for the first time, took place from the back part of the wound, immediately above the olecranon process, but not to a great extent. It was restrained, in the first instance, by the application of a tourniquet over the brachial artery, and when it occurred some hours subsequently, by gently introducing into the wound, strips of lint wetted in a saturated solution of gallic acid. On the following morning, the gangrene had greatly extended over the forearm, the back part of which was in a state of sphacelus. The boy still complained of intense pain, and the constitutional disturbance was very great. From the great rapidity of the destruction of the parts from the period of the accident, the occurrence of hæmorrhage, and the alarming nature of the constitutional symptoms, the idea of saving the arm was abandoned, and it was decided, in full consultation, that the only chance of saving the boy's life was immediately to amputate the arm. This I accordingly at once performed, and although I amputated as high up as possible, I found the parts in the line of the incision had not altogether escaped injury. Several small coagula of blood were observed, and only one artery, the brachial, required to be ligatured, showing that the parts were much contused.

The case is of some interest as an instance of amputation undertaken in rapidly spreading gangrene; and I think with those even who oppose

amputation under such circumstances, this case would have been considered an exceptional one. For my own part, I have not a doubt that had I not so acted, the case would have terminated fatally, whereas the patient has now made a good recovery. The stump suppurated freely, but no appearance of gangrene took place. The ligature came away on the 14th, and the parts are now (the 21st day) reported by Mr. Nathaniel Alcock, who kindly took notes of the case, to be healing satisfactorily. I am indebted to Surgeon Allan Douglass, late a pupil of the hospital, for a most accurate drawing of the limb, shewing its gangrenous condition, taken immediately after the operation.

SYME'S AMPUTATION AT THE ANKLE-JOINT, IN A CASE OF DISEASE OF THE OS CALCIS.

By JOHN HAMILTON,

Surgeon to the Richmond Hospital.

George Tuohill, æt. 26, a tall and strong-looking young man, black hair, sallow complexion, admitted for lameness of the left foot, from disease of the left os calcis. The heel is swollen and red, altered in shape by the natural hollow being filled up by the swelling. The distance from the outer ankle to the side of the sole of the foot, is found by measurement to be slightly increased. There are two fistulous openings on this side, below the malleolus and about an inch and a-half from each other, discharging yellow matter rather copiously. There is some pain, but not severe; occasionally it prevents sleep at night. The disease appears to be restricted to the os calcis, the ankle quite unaffected. On passing a probe into either opening, diseased bone is felt, and as if there was a small piece rather loose.

Three years and a-half ago, he first felt pain in the heel, with some swelling and redness. The swelling broke, discharged matter, and has never since closed. Two years ago a second swelling burst, this was preceded by much pain; it has remained open also; he is not aware of any cause, his general health is good; no dead bone has ever come from either opening. Assisted by my colleagues, Dr. Hutton and Mr. Adams, I operated with a view to remove the dead bone; there was evidently necrosis of the os calcis, with a cavity containing a small portion of dead bone; the removal of this might be followed by restoration of the bone generally to a healthy condition.

I made a crucial incision over the diseased bone, the first cut uniting the two fistulous openings, the second transverse to this. The flaps were rapidly dissected off the rough diseased surface of the bone; a hole was found in it, rough and irregular: through it I removed some loose bits of dead bone; I found it necessary to enlarge the opening, which

was done with chisel and hammer, and more loose dead bone was taken away. Finding the open surface of the cavity soft and diseased, I gouged it away; the cavity would now hold a small hen's egg; the bits of bone removed, equalled in size a chesnut.

This operation was followed by considerable local improvement; but not to the extent expected, or what usually follows the removal of the sequestra in necrosis. At the end of a month a fresh abscess formed over the back of the heel, with much constitutional disturbance; the abscess was opened, and after waiting till the local and general irritation had subsided, I cut freely down to the bone in this situation and removed some portion of the back wall of the cavity, which seemed to be dead. A good deal of temporary improvement followed, but it was clear that the whole substance of the bone had become so radically diseased, that no partial operation would be of any use. Three weeks after this, his manner, always rather excited, became that of a confirmed lunatic, and he was transferred to the Richmond Lunatic Asylum, under the care of my friend Dr. Banks.

He was in the Asylum many months before he was sufficiently recovered to be a fit subject for further operation. June 6, 1856.—I found the condition of the os calcis very bad, much swelling and redness, fistulous openings discharging freely and leading down to carious surface of the bone, hard and rough, like a brick, or soft and very sensitive; whatever chance the former operations had given him, had been more than counterbalanced by the restlessness of lunacy. I had no opinion of the operation of removing the entire os calcis, as after the strong buttress of that bone was removed, the foot would be, in all probability, a very unserviceable one. I preferred the amputation at the ankle-joint, in the manner recommended by Mr. Syme; an operation, I believe, when the cases for it are judiciously selected, equal to any in the satisfactory nature of its results.

I made an incision obliquely round the foot, from a little in front of the ankle towards the heel; the soft parts were dissected up carefully, and with some difficulty over the heel, but without perforating the thin skin there. The joint was opened and the foot removed; a slice of the ends of the tibia and fibula was sawn off; the vessels secured, and the flap adapted to the ends of the bones. It fitted well, and the edges were kept together by needles and twisted suture. Water dressing.

The only trouble I had afterwards, was from the extraordinary restlessness of the patient, who, though not mad, was what is called flighty. In consequence of the knocking about the stump got, there was a good deal of suppuration, and I had to open a large abscess which formed on the outside.

On the eleventh day, he got up and walked to the water-closet, and in getting into bed struck the stump a violent blow against the bedstead; profuse hæmorrhage was the immediate result; in a

few minutes he lost half-a-pint of blood; the hæmorrhage ceased, however, by cold and exposure to the air, without my having to search for the bleeding vessel. About two months after the operation, the stump was quite healed, and was, in every respect, a most satisfactory one; he has put it since to every possible test that a stump could be put to, walking, running, jumping, and dancing. For some months he went about the north of England, earning a livelihood by playing on a pipe and dancing on the lame leg.

If we consider that till Mr. Syme's operation at the ankle-joint, in cases such as these, where partial amputation of the foot was not feasible, the patient was condemned to amputation below the knee, and a wooden leg for the rest of his life; and if we compare his state, with that of the patient in the present instance, we have every reason to be grateful to Mr. Syme, and to admire the consummate skill which led to so great an improvement in surgery.

ON OPIUM IN CERTAIN CASES OF OBSTINATE CONSTIPATION.

By Dr. O'DONOVAN.

Mary Garvey, a widow, æt. 59, was attacked on the 19th of Sept. 1855, with severe and constant vomiting of a bilious character, which continued the entire night.

I found her, the next day, extremely feeble, with anxious countenance; pulse 110, small and weak; tongue coated with creamy fur; no epigastric pain, but some abdominal tenderness referred chiefly to the right iliac region. The irritability of the stomach was so great that she rejected even cold water; the bowels were moved on the previous morning; thirst urgent, skin normal. The vomiting was relieved by small doses of acetate of lead and opium, but the abdominal pain continued without any motion from the bowels.

21st—Vomited two or three times during the night; no motion from the bowels; abdomen tumid, pain on pressure rather increased. A turpentine enema was thrown up with O'Beirne's tube; it was followed by a copious discharge of hardened feculent matter, but without any relief to the tumidity or painful state of the abdomen; a calomel and jalap bolus was administered, and the enema repeated, but it was rejected with scarcely a trace of feculent matter.

22nd—The stomach again became irritable, countenance extremely sunken and anxious; pulse very weak, 120; abdomen more swollen and tender on pressure; the pain more circumscribed, and confined to the right iliac region, which gives a kind of doughy sensation to the hand. To have a blister to the abdomen, and the enema repeated; to get a little cold brandy and water and chicken jelly and an anodyne at night.

23rd—Stercoraceous vomiting set in, with cold clammy sweat; pulse a mere flutter, abdomen more tympanitic, and pain more general on pressure.

The odour of the bed-room insupportable. Acetate of lead and opium now failed to suppress the vomiting; and the vital powers were so much reduced, that I felt it useless if not absolutely dangerous, to have recourse to hydrocyanic acid, or chloroform. I therefore determined to administer opium (without, I confess, any sanguine hopes of success), but having given it with the best result, in a case of "Plastic Inflammation of the Intestines,"* I thought it might afford a chance of overcoming the spasmodic and antiperistaltic motion of the intestines. I therefore ordered two grains of crude opium in a pill, to be taken every hour, with brandy and water in small quantity frequently repeated. After the fourth pill was taken, I found the vomiting and tympanitis considerably relieved, and the warmth of the surface restored. After the tenth pill, the abdomen felt so much relaxed, I was induced to inject a large quantity of warm water with some table salt, until from its volume it was partially returned; the remainder was, however, retained for an hour, and was then voided with a considerable quantity of scybala, accompanied with flatus of an exceedingly offensive nature.

The opium was now reduced to one grain every hour, and a steady improvement set in; the pulse fell to 110, and became fuller; the countenance lost its cadaverous aspect, the tongue became warmer, and the abdomen free from pain; the bowels were twice moved, and she slept quietly. To get some warm port wine, (she has refused the brandy,) and a pill every third hour.

24th—She felt quite restored, and complained of debility only. From this date she continued steadily to progress, and she is now, Sept. 1857, in good health, and has never since suffered from any affection of the bowels.

It is a matter of little importance whether the chain of symptoms detailed in the above case depended on the obstruction arising from impacted feculent matter, or from invaginated intestine, the treatment required in both being nearly identical and the diagnosis almost impossible during life.

I do not advise that opium in doses sufficient to paralyze the muscular structure of the intestine, should be given in every case of obstinate constipation; but in a case like the present, when life was fast ebbing, when ordinary treatment failed to give relief, and when the use of direct sedatives would, to a certainty, lead to a fatal result, it is well to know, paradoxical as it may appear, that opium, one of our most powerful *astringents*, may, in full doses, produce an effect diametrically opposite. Nor, in fact, is a laxative state of the bowels unusual in cases where opium has been admini-

nistered in large doses. In two out of ten cases of acute rheumatism which I have treated entirely by this drug, obstinate diarrhoea has appeared, and has required a treatment very opposite to that which is usually successful in checking this malady.

Proceedings of Societies.

PATHOLOGICAL SOCIETY OF DUBLIN.

November 29th.

Benign Osteosarcoma.

Mr. SMYLY exhibited a specimen of benign osteosarcoma, affecting the first phalanx of left middle finger, in a young person. The patient was first seen by Mr. Paget and Mr. Lloyd, in London, who told the mother, that in all probability it would be necessary, ultimately, to have the finger removed, but that an attempt might be made to save it by removing the morbid growth. This was accordingly done, but the tumor reappeared. It was a second time removed: the second operation was performed in May last. The disease having again recurred, the patient was admitted into the Meath Hospital; and on November 28th the finger was amputated by Mr. Smyly. The tumor was found to consist of a solid structure, having a semi-cartilaginous appearance; it seemed to arise from the interior of the phalanx, and was covered by a perfect bony shell, and presented a good example of enchondroma.

Diseased Stump.

Mr. SMYLY presented the stump of a man who died from repeated attacks of hæmorrhage, after amputation above the knee. The limb was removed on account of a scrofulous affection of the leg, of nine years' duration. The patient was a man of intemperate habits, and became jaundiced a few days after the operation. During the operation there was not much bleeding, and the stump was what is called a dry stump. All went on well for about eighteen hours, when there was considerable hæmorrhage, and a vessel of some size, not previously tied, had to be secured. There was also bleeding from the sawn portion of the bone, but this was checked by pledgets of lint steeped in turpentine. The next day the stump was in a rather sloughy condition, and on the eighth day the ligatures were all washed away with the discharge at the dressing, but there was no bleeding at that time. On the morning of the ninth day, however, a stream of blood issued in a jet from the stump, and was projected beyond the foot of the bed. The resident pupil, who was at once called, immediately controlled the hæmorrhage, and sent for Mr. Smyly; when he arrived, however, the bleeding had entirely ceased. The stump bled again the following day. It was now considered

* Vide DUBLIN HOSPITAL GAZETTE, Vol. I. p. 186, N.S.

whether, under the circumstances, it would be prudent to cut down upon the artery higher up, and secure it. This, however, was objected to, and the artery was tied in the stump. For five days after this there was no more bleeding, but at the end of that time it recurred.* The hæmorrhage was sometimes at one part of the stump, and sometimes at another. The patient gradually sunk, and died on the thirty-first day after the operation. On examining the stump after death, and opening each vessel, it was observed that no effort whatever had been made by nature towards the formation of a coagulum, the cut extremity of every vessel being completely pervious. The liver was of considerable size, particularly at its posterior part, and very heavy. One of the kidneys had a small abscess in its cortical structure.

Foreign Body in the Larynx.

Mr. GEORGE PORTER exhibited a larynx, at the summit of which a large piece of bacon was lodged, causing death by asphyxia. He stated that he was called on to examine the body of a man who suddenly fell from his chair whilst eating his breakfast, being very much intoxicated at the time. Upon examination, a piece of fat bacon, fully an inch square, was found fixed behind the epiglottis, and completely closing the upper orifice of the larynx.

Mr. GEORGE PORTER also exhibited some *Biliary Calculi* of unusual shape, and possessing other peculiarities.

December 5th.

Dr. MACSWINEY exhibited a *Pendulous Tumor* removed from the temple of a gentleman aged 72 years. About sixteen years ago, a small pea-like tumor formed beneath the skin; about six years ago it rapidly enlarged, and at the same time it became tender, and some severe pain was occasionally felt in it. As the tumor became enlarged, it began to depend, and its lower surface to abrade, giving rise to a thin sero-sanguineous discharge, but not of a disagreeable odour; and this, added to the pain that he suffered constantly, was the cause of much distress to him. There were no enlarged glands in its vicinity, nor in any other part of the body. The patient was very feeble, anæmic, and emaciated, and suffered much from oppressed breathing and loss of rest. The tumor had a very encephaloid appearance; Dr. MacSwiney, however, removed it, considering the general symptoms to be caused by constitutional irritation from the ulcerated surface. Several small arteries bled very freely; one required a ligature. Immediately after the operation the patient began to

regain his appetite, colour, sleep, and spirits, and has progressed most satisfactorily. Dr. MacSwiney considered the tumor to belong to that class which Mr. Paget has described under the name of fibro-plastic—the “Cancroid” of Lebert. Its section was uniform and smooth. It was dense in structure, and somewhat *succulent* looking. Its structure was also brittle, brainlike, and pinkish-grey in colour; and finally occupied a situation which the fibro-plastic tumor is known to frequent.

1. Melanosis of Eye Ball.

2. Cancer of Breast.

Mr. COLLIS said—The melanotic tumor of the eyeball and the cystic disease of the breast which I present to the Society to-day, have at least one point of similarity—namely, the presence of melanotic matter in each.

The history of the first is as follows:—The patient, a married woman, aged 57, complained that she felt a sudden severe dart of pain, about two years ago, in the inner angle of the right eye. This pain occurred irregularly, about once each day, gradually increased in frequency and duration, and extended to the outer angle, ball of eye, and temple successively, and was accompanied by great watering of the eye and nostril. Nine months after pain was first felt, she became aware of loss of sight, a slight glimmer of light in the lower part of the eye alone remaining. She was admitted into the Meath Hospital, September 21st; there was then much chemosis, and swelling of lid; the eye, distorted and slightly enlarged, projected forwards at the lower and inner quarter. The sclerotic was at this point thin and prominent, of a blackish hue; the cornea was transparent, the capsule of the lens opaque, and the lens in its capsule pushed forward into the anterior chamber. The iris seemed drawn out of the way; the pupil, I suppose, dilated, but its outline was not to be made out. I punctured the chemosis in several points, with relief to the patient. Next day the sclerotic gave way at the thin point, and a shreddy black substance was oozing out of the eye. This oozing continued from day to day, and seemed to ease the patient. As the eye was useless, and might become a source of mischief, I removed it on the 5th October. Dr. Bigger, who sent the patient to me, had made the diagnosis of melanotic disease, which was found to be correct. The tumor, when divided, was found to be firmer than the rest of the eye, somewhat circumscribed; it consisted of colouring matter, oil globules, and aggregations of coloured globules; no cancer cells were to be found in any part of it. The colouring material had spread into the vitreous humour, retina, capsule of the lens, and iris; none was found in the lens or sclerotic, or in the optic nerve or muscles. The lens was still in its capsule, but pushed forward so as to fill the anterior chamber. This case seems to be analogous to epithelioma, in possessing no new element, but merely a hyper-

* During this period he was much reduced by diarrhoea, which, with vomiting, continued with more or less severity throughout his illness.

trophy of a natural structure, with misplacement. The colouring matter was increased in quantity, and extended into parts where it does not occur in the healthy state. From this analogy to epithelioma, I look forward to the disease not returning in this case.

The second case is one of cystic disease of breast, with cancer. The lady from whom I removed this breast is 38 years of age, has one child ten years old, is very large and fat, with fatty disease of the heart. In January last she first observed a small hard rough tumor attached to the upper and inner part of her left breast, standing up from the gland, but not attached to the skin. There were darts of severe pain through it, and shortly afterwards a sanious discharge came from the nipple; blue veins began to ramify over the surface. The nipple was not then, or subsequently, retracted. About June the entire breast was observed to have begun to rise towards the level of the original tumor, and to have become granulated on the surface, as if grains of shot were under the skin; and by the beginning of September the original tumor was almost lost in the increased growth of the gland. The pain remained confined to the spot where the first tumor arose. The treatment consisted of iodine, externally and internally; iodide of potash, iodide of arsenic. No treatment was effectual, and every external application had the effect of increasing the discharge from the nipple. A rough section showed the entire gland studded with cysts, from the size of a pin's head to that of a small nut; they appear connected with the ducts; some of them open into the larger ducts, and all lie in contact with the fibrous structure of the gland. In the upper part they are very numerous and close, and in the interspace is some matter, like cancer to the eye. The microscope showed here melanotic cells of large size, and granulated; these I conceive to be cancer-cells, filled with oil globules that have been impregnated with colouring matter. These cells are not to be found in any other part of the tumor. The only remaining point to be noticed is the contents of these cysts. The majority are filled with simple oily and albuminous fluid; some, however, have small granular masses attached to their lining membrane by a pedicle, and resemble miniature bunches of grapes. The structure of these bodies is very elementary, simple fibrous membrane enclosing some blastema.

Mr. Paget speaks of three ways in which cysts originate—namely, from ducts, from veins, and as shut sacs. This case appears to be an instance of the first mode of origin, and is further remarkable from the co-existence of cancer and cystic growth, —a combination which I believe to be of the worst type. I removed this breast, after consultation with Mr. Cusack, and rather in consequence of the lady's earnest wish to have it removed, than from any sanguine confidence in its not returning.

SURGICAL SOCIETY OF IRELAND.

December 12.

SESSION 1857-58.—First Meeting.

MR. IRVINE, President of the College, in the Chair.

The President's address commenced with a well-merited eulogium on the late Dr. Bellingham, one of the secretaries of the society; and he then rapidly reviewed the present position and prospects of the society, and terminated a very eloquent address, with some general remarks on the utility of discussion, and the impulses by which it is to be regulated.

MR. TUFNELL detailed the particulars of a case of

Thoracic Aneurism,

which had been successfully treated.

Samuel Parkes, æt. 54, a die cutter and seal engraver, a delicate-looking man (and exhibiting considerable cardiac distress), was admitted into the City of Dublin Hospital on the 18th of September, 1854, with thoracic aneurism. He stated that he had always been temperate and steady, but had worked very hard at his trade, that of die cutting in steel. For some time back he had felt heaviness in his chest, but had not noticed anything particular, until about five weeks prior to admission, when one night, on taking a pill for constipation, it passed into the trachea. He was seized with intense coughing, which lasted for an hour, and was exhausted by its severity. Two days subsequently he experienced severe pain in the right breast, and the next day a tumor appeared elevated above the surrounding skin, which had gradually increased up to admission.

At this time the tumor was three inches in diameter, elevated in its centre nearly two-thirds of an inch, with considerable pulsating action, the integument over it being apparently not thicker than three or four lines. The integument itself was not discoloured. The tumor presented to the right side of the sternum, in the situation of the third and fourth ribs, which, together with a portion of the sternum, had been absorbed. There was a double pulsation sound but no murmur. The pulse was 88, full and regular, and equal at either wrist. The patient's general health seemed good, and he complained only of the pain in the tumor, which he said was excessive. He had continued to work at his trade until obliged to relinquish it in consequence of the severity of the pain.

The aneurism evidently sprung from the anterior aspect of the right side of the ascending portion of the arch of the aorta, and was progressing rapidly to the surface, absorbing all before it. It must have existed for some time unperceived by the patient, and its appearance on the coughing fit shortly before must have depended upon previous removal of the bony and cartilaginous structures intervening between it and the integument.

Regarding the case as one suited for Dr. Bellingham's plan of treatment upon restricted diet and rest, I spoke to the patient, and asked him if he would aid in carrying it out, and confine himself rigidly to the diet and regimen prescribed. I explained to him the critical condition in which he was placed, and his almost certain progress to speedy death, unless the absorbent action then going on could be arrested, and the sac so lined with fibrine from within as to prevent further distention of it. He consented readily, and I believe *strictly* kept his word, and took no food or drink whatever during the period of his stay in hospital other than that which he was allowed.

I ordered him to have an excellent well-made bed, with two hair mattresses, and plenty of pillows for props, and once recumbent, not to rise for any purpose whatever—a urinal receiving the vesical, and a bedpan the alvine discharges. I desired him to speak as little as possible, and furnished him with plenty of books. His diet was confined to two ounces of white bread and butter for breakfast, with two ounces of good new milk; two ounces of white bread and two ounces of broiled mutton for dinner, with two ounces of milk; and two ounces of white bread and butter, with two ounces of milk, for supper—thus making the total of the solid food to amount to only eight ounces, and of the fluid food to six ounces in the twenty-four hours. Ice was applied in a bladder at intervals over the tumor. This treatment was commenced upon the 19th of September, and continued steadily until the middle of November. Its effect was as follows: At first he felt the loss of food, and used to look anxiously at the other patient's meals, but being a sensible man, he restrained his appetite. He suffered more from thirst than from hunger, and complained a good deal of dryness of the throat and fauces at night, which, however, was somewhat relieved by keeping a small pebble in his mouth.

He daily complained less and less of these annoyances, and by the 25th September was progressing rapidly, the pulse being reduced to 70 and soft, the pulsation and pain of the tumor greatly diminished. An untoward circumstance now occurred which threw him back. A case of delirium tremens was admitted into the ward, and the violence of this patient caused him agitation and alarm. When visited on the morning of the 26th the heart's action was found to be tumultuous and impetuous, and the whole system much disturbed. He was ordered a little port wine and opium, and by degrees confidence and calmness of mind were restored. By the 28th he had regained his previous condition; the pulse was full, but very compressible, and beat steadily at 70 in the minute. The tumor seemed flatter, and was described by the patient "as feeling condensed into a smaller space." The ice had been discontinued for some days, and a thin piece of linen rag, moistened with water only, kept as an evaporating medium

to the surface. The double thump had already disappeared in the tumor, and a single beat only could be felt, corresponding to the natural sound of the heart, but slightly louder. The patient had ceased to complain of hunger or thirst.

Upon the 2nd of October the pulse had fallen to 62. He could now lie flat upon his back for two hours at a time without experiencing any uneasiness; after this, however, uneasiness was felt, and unless his position was shifted to the side, cardiac agitation was experienced. I mention these particulars, for though apparently trifling in themselves, upon attention to them must depend much of the likelihood of success in treatment, *where all is dependent on quietude of circulation* and rest. The tumor now gradually became more and more firm to the feel, and flattened and declined. Towards the middle of November his general health was excellent, and his weight had but very little reduced.

His diet was slightly increased, and on the 13th of December he left the hospital at his own desire, having been able for some time to walk about the wards and up and down stairs without distress. For the latter part of his stay in hospital he was under the care of my colleague, Professor Hargrave, my period of attendance having expired.

I saw nothing more of this man from that date until a short time since, when he called upon me to request my advice for an irritable ulcer of the leg. I partially recognised him, but not entirely, and on asking if I had not seen him before, he replied—"Oh, yes, sir, you cured me of an aneurism, but it is not about that that I am come—it never troubles me now." I looked at the ulcer of the leg, but felt more anxiety to ascertain the condition of the contents of the chest and the changes which had taken place. I should, however, premise by stating the nature of his occupation and proceedings during the intervening three years. Upon being questioned, he said that on leaving the hospital in December, 1854, he had returned home, "feeling able to do something for his family's support;" that in March following he regularly resumed his trade as a die and steel engraver, and had continued steady at work ever since.

Upon stripping him the first point that attracted notice was the enlargement and tortuous state of the abdominal and pectoral cutaneous veins, the epigastric, circumflex, and mammary having assumed the condition of large venous trunks. The tumor next arrested attention. It projected to the right side of the sternum, nearly midway between the clavicle and nipple, but inclining to the former, where it presented a bulging prominence the size of a small saucer, occupying the situation of the cartilages of the second and third ribs, making this side contrast strongly with the hollow intercostal spaces and marked ribs upon the left. No pulsation was visible in the tumor, nor made apparent when any testing object (such as a portion

of white paper) was placed upon it. To the hand it felt dense, and the cardiac impulse against the interior of the sac was unheeded. The sound on percussion was dull over a very large space around the tumor, whilst to the ear a double sound was given, intermediate in time to the contractions of the heart. Upon deep inspiration of the whole chest, this portion was not expanded. The heart's sounds were audible over a very large portion of the chest, and the pulsation; aneurismal and cardiac, was communicated to the hand or ear for a space of fourteen inches in an oblique line from the right clavicle down to the left hypogastric region.

His general appearance indicated a barrier to the return of venous blood to the right side of the heart. There was some congestion of the face, especially increased upon stooping, with puffiness of the neck and face to a slight degree. There was no interference by pressure upon the trachea, or at least to any extent, none upon the œsophagus or the deep nerves of the chest; for stridulous breathing, dysphagia, and aphonia were all wanting, his functions in this respect being very good. He had some cough and expectoration, which caused him a good deal of annoyance, particularly at night. After coughing, he said he occasionally feels pain dart into the tumor, but not at any other time. There was no interference with either the carotid or radial pulses, and of the latter the circulation was equal on both sides. He stated that he lies at night on the right side to sleep, and cannot rest upon the other, but changes over to it occasionally prior to going to sleep. He said that he had during the past year lost flesh, and is not as strong as he was, but still works regularly at his trade, which is a fatiguing occupation.

lower lid. These measures subdued the inflammation, and he soon left the hospital, able to read large letters.

Second case.—A man, aged 20, had received a blow from a thorn branch in the left eye, three weeks before his admission into hospital. An opaque lens, projected through the pupil dilated to its utmost extent, was then in contact with the back of the cornea. There was vascularity of the conjunctiva, with chemosis and swelling of the lids; excessive pain of head and eye, and vision totally extinct. Arteriotomy to eight ounces at once relieved the pain of the head. The next morning an iris knife was passed into the opaque lens, which flowed out as a milky fluid. The pain of the eye ceased in half an hour. On the third day the iris had resumed its natural position, the pupil was half dilated, and a clot of blood could be seen in posterior chamber. A couple of leeches were applied every two or three days, and wet lint to the lids. Salivation had been induced before admission. Absorption of the clot gradually took place, and vision improved slowly but perceptibly.

In the discussion that followed, Mr. BROWN declared himself decidedly opposed to general depletion in ophthalmic inflammation, considering the very opposite line of treatment much more generally advisable. Where blood is to be abstracted, he preferred leeching to arteriotomy.

Dr. BRYCE spoke strongly in favour of early and copious bloodletting in inflammation of the eye; and Mr. LAMONT thought, that in iritis at least, free bleeding was of decided benefit.

Professor FERGUSON deprecated the abstraction of blood in general as a means of subduing inflammation.

November 28th, 1857.

Dr. BABINGTON, V.P., reported a case of

Prolapsus Recti

in a young woman, supervening on diarrhoea, which set in after an easy childbirth. The protrusion had been mistaken for piles by another practitioner, who included it in a ligature. This caused intense pain, and on the second day he removed it, and did not see his patient again. On her admission to the Co. Londonderry Infirmary, the prolapsus was of ten weeks standing, and eight inches in length. Its surface was glazed and dry, and at about three inches from the end marked by the ligature. There was emaciation, with irritative fever, stomach rejecting all food, and no alvine evacuation for three weeks. There was distension of bladder, with escape of urine on vomiting; three pints of water were drawn off, and the intestine was reduced with very slight pressure. Its return was immediately followed by a considerable muco-purulent discharge, and great relief to the patient. Two grains of opium were given, to be repeated at bedtime. On the next

BELFAST CLINICAL AND PATHOLOGICAL
SOCIETY.

Session 1857-58.

The following interesting communications (among others) have been made to this Society during the present Session.

November 14th, 1857.

Dr. H. THOMPSON, of Lisburn, reported two cases as illustrative of the efficacy of *Arteriotomy in Inflammation of the Eye*. The first case was of a man, æt. 60, blind for the last year from hard cataracts. The operation of extraction was performed on the right eye, and all went on well until the tenth day, when, in consequence of an accidental blow, acute inflammation set in. Six hours after the injury six ounces of blood were abstracted from the temporal artery, with complete relief to the pain, which had previously been constant and intense. Calomel was given to salivation, cold water kept to the eye, and a couple of leeches applied, from time to time, to conjunctival margin of

day (September 7th) the abdomen was distended, but not tender. The sickness continued; pulse 120, small. Ordered castor oil and turpentine; enema in the evening. The abdomen to be well fomented.—8th. Draughts had been rejected, nor could an enema be given, as neither a stomach pump tube nor a No. 13 catheter could be introduced further than three inches. The abdominal distension was very great; vomiting incessant; retention of urine continued. Calomel and opium, and draughts of hydrocyanic acid, were ordered.—9th. Had passed water, but bowels had not been moved. Abdominal distension so great as to impede respiration; pulse 130. Dr. B. proposed Amussat's operation, but the patient refused to submit, nor would she allow any further instrumental examination of the anus, from which there continued to flow a considerable muco-purulent discharge.—10th. At 2 A.M., she passed a fecal evacuation, mixed with blood and mucous shreds. These evacuations continued with irregular frequency for several days; the vomiting ceased; the abdominal distension gradually diminished, and in three weeks she walked out of hospital.

The remarkable features of the foregoing case, viz., the size of the prolapse, the prolonged period of constipation, the cause and source of the purulent discharge, with the propriety of resorting, in such cases, to Amussat's operation, were briefly commented on by some members, but in the absence of the writer, it was not thought desirable to protract the discussion.

December 5th.

MR. BROWNE, V.P., introduced a patient suffering from a peculiar displacement of the

Crystalline Lens of the Left Eye.

The man was a nailer, aged 55 years, who, when a child, lost the sight of the right eye by the stab of a penknife. He had enjoyed good vision in the left eye till within eighteen months, at which time sight began to decline gradually, till it became extinguished completely, save the appreciation of the difference between light and darkness. When Mr. Browne first saw the case, the left eye presented the usual features of cataract, the pupil being undilated; dilatation, however, exhibited the opaque lens, drawn, as it were, to the inner side of the pupil, leaving a small space to the outer side, through which tolerable vision was obtained. The lens was evidently displaced from its bed in the vitreous humor, probably from disorganisation of that body, and partial destruction of the ciliary processes. It was tremulous, and held *in situ* by the attachment of some few of the inner ciliary processes, while its outer edge projected into the pupil. Mr. B. considered the lesion to depend on disease of the hyaloid membrane, and that the disorganisation of the vitreous

body was not the result of *sympathetic* ophthalmia; he proposed to puncture the lens with a fine needle, and when partial absorption had taken place, to extract the nucleus.

Bibliography.

Archives of Medicine. No. I. Edited by LOWNEL S. BEALE, M.B., F.R.S., Physician to King's College Hospital, &c., &c. London: Churchill.

We notice with much pleasure this first number of a journal, which we hope will be succeeded by a long series equally interesting and valuable. Dr. Beale, in his advertisement, states that he is desirous of publishing "reports of the work done in his laboratory and microscope room;" and he further solicits papers on—1st, Practical Clinical Observations; 2nd, Original Researches in Physiology and Pathology; 3rd, the Results of Microscopic and Chemical Examinations of the Organs and Secretions in health and disease; and 4th, Descriptions of the different Processes employed for demonstrating various Structures, &c. He promises to supply copious illustrations, and purports, as far as possible, "to substitute accurate representations of the objects for a minute description of their characters;" and in this first number he so far fulfils his purpose, by publishing ten lithographic plates to illustrate the text.

The first paper is contributed by Dr. Todd, on "Acute Internal Inflammations;" and although unfinished, must command that attention which all Dr. Todd's writings deserve; though we cannot fully subscribe to his views in every particular, either as to the powers possessed by therapeutic agents, or to the connexion of acute inflammations of internal organs with undue prominence of some diathesis, whether it be gouty, or rheumatic, or scrofulous.

Next follows a paper on the interesting subject of Comparative Microscopic Measurements; and in these days, when so many observers are at work, it is, no doubt, of primary importance that their observations should clearly state the magnifying power of the instruments they employ, otherwise much of the value of their papers is lost.

The third paper announces the presence of cholesterine in the fatty matter of degenerated kidneys, obtained by evaporating down quantities of the urine, and acting on the residual portion. Next we have the analysis of specimens of chylous urine. Then follow some clear directions about injecting tissues previous to microscopic examinations, and on the injection of the liver. Lastly, we may notice a most elaborate and valuable paper by Dr. Boze, on the volumetric analysis of urine—a paper we should be very happy to extract, but it requires careful study, and will not bear much curtailing. It certainly is a very perfect and rapid method of obtaining analytic results, but is, we fear, much more suited for a good chemist, with a pathological laboratory, than for the rapid examinations required by the practitioner, who, from lack of time, is usually obliged to content himself with an approximate result as to quality, rather than a quantitative research, however short its details.

We wish Mr. Beale every success with his useful and valuable periodical, which we strongly recommend to the friends of medical progress.

Ophthalmic Hospital Reports and Journal of the Royal London Ophthalmic Hospital. No. I. October, 1857. London: Churchill.

We have much pleasure in announcing the appearance of a new journal of ophthalmic surgery, bearing

the above title. Indeed, it has been a matter of surprise that the medical council of the well-known hospital at Moorfields, have not, ere this, taken the step they have now determined on, of issuing a periodical record of the ophthalmic observations and experience which that hospital affords.

We are informed, in the preface to the first number, that the Ophthalmic Journal will be, for the present, issued quarterly. It will give short monographs, by members of the staff, and of the profession generally, on every physiological or pathological subject connected with its especial study; with, it is hoped, occasional engravings or photographs, as illustrations, and will contain a summary reprint of the monthly reports of the registration of the hospital.

The first number (which is sent forth at the moderate price of a shilling) amply justifies the expectation that the journal will be ably carried on. It contains, besides a brief preface, facts and observations by the editor, in which are comprised statistics of cataract, and a case of reinstated (artificial) pupil; original communications, by Mr. Bowman and Mr. Poland; and the quarterly report of the Registrar.

Mr. Bowman's paper is on the treatment of lacrymal obstructions; it is of much practical interest and value, as his papers always are, and may be said to form an appendix to his well-known memoir on a new method of treating certain cases of epiphora, published in the Medical and Chirurgical Transactions of 1851.

Mr. Poland's communication is on protrusion of the eyeball, with cases showing some of the causes of this deformity.

The quarterly report of the chief operations performed at the hospital by Dr. Bader, Curator and Registrar, forms one of the most interesting features of the journal, and no doubt will add much to its utility in the eyes of those whose experience on such subjects must, of necessity, be comparatively limited.

The Editor, Mr. Streatfield, assistant-surgeon to the hospital, has proved himself quite equal to the duty he has undertaken, by the admirable manner in which the first number has been brought out. We wish him every success in his editorial capacity.

Selections from British & Foreign Journals.

ON THE EFFECTS OF SACCHARINE DIET IN DIABETES MELLITUS.

By THOMAS WILLIAMS, M.D., Lond., Physician to the Swansea Infirmary.

The *British Medical Journal* for November 14th contained a paper by Dr. W. Budd, of Bristol, suggesting the use of sugar as a remedy in diabetes.

Knowing that the author must be familiar with those researches which in France and in this country have brought the pathologist so near to a correct solution, not only of the seat, but of the nature of diabetes, I resolved to put the suggestion into practice, and carried it out in the cases, of two gentlemen, of the ages respectively of thirty-four and thirty-eight. Both are thin, hard, wiry-looking persons; in both the disease has endured for a period of nearly two years. In neither has any loss of flesh or weight occurred during the last six months. Both are also similar in this respect—that the urine for many months has preserved an extraordinary uniformity in volume and specific weight. Both bear testimony to the fact that unusual muscular exertion of any kind, if it does not increase the quantity, is sure to augment the specific gravity of the urine to a degree corresponding to the severity and duration of the labour. This observation is one not devoid of interest. From it, it may be argued

that whatever increases a general tissue change throughout the body, will add to the solids of the urine. Such a method of reasoning is, however, vague and liable to many fallacies. A better explanation may be arrived at.

The opportunity afforded by these two cases induced me to make trial of the plan of treatment suggested by Dr. Budd. The opportunity was highly favourable. The symptoms were quiescent and stationary. The patients were intellectual men. Each was eager to discover a new remedy for a disease with which he was profoundly disgusted, and each received the proposition with a perfect transport of joy.

It should be stated that between these two gentlemen there was no concert. They were unknown to one another, and lived in distant parts of the country.

I proposed that each should first return to common mixed food—including the use of sugar at breakfast and tea, ordinary bread at every meal, vegetables, and malt liquor.

It should, of course, be understood that before this experiment both these gentlemen had rigorously adhered to a non-saccharine dietary; that in Case A the urine had scarcely ever, for six months previously, varied from 1040 in specific gravity, and three pints in quantity in the twenty-four hours; that in Case B the conditions were very nearly the same, although not quite so unfluctuating.

In twenty-four hours after the change of diet in Case A, the urine increased from three pints to four pints and a-half, and from 1040 in specific gravity to 1042. In forty-eight hours under the same diet the quantity rose to five pints and some ounces, and the specific gravity to 1050. In another twenty-four hours, being the third day from the commencement of the experiment, the volume rose to six pints, and the specific gravity to 1056.

Case B exhibited almost precisely the same change. The urine increased in quantity and density in the same time in an equally remarkable degree.

Neither of the patients could be prevailed upon to continue the experiments any longer. Both grew rapidly worse in every respect, and became greatly alarmed. The thirst grew more and more unquenchable. The skin became drier and drier; the bowels were every day more constipated; the mind passed from a calm state into a condition of rapidly increasing excitement, in one bordering almost on mania. The symptoms in every sense exchanged the passive for the active condition. Both patients regained their former tranquil feelings by the use of opium for three or four nights; and it was only slowly that the urine returned to its former physical properties.

It seems to me that the results obtained through the preceding experiments lend a striking confirmation to the views lately advocated by Dr. Harley, of University College. (*British and Foreign Medico-Chirurgical Review*, July, 1857.) Dr. Harley proves, by an ingeniously devised series of experiments, that certain irritating substances, (chloroform, ether, methylated spirit, ammonia, &c.), injected into the portal system of a healthy animal, are capable of exciting that irritation of the liver, which, in a very short time, is followed by the appearance of sugar in the urine.

This is undoubtedly the fact. Dr. Harley differs from M. Cl. Bernard as to the explanation. I have no hesitation in siding with Dr. Harley, and maintaining that irritating substances introduced into the portal system augment the glucogenic function of the liver, by stimulating the hepatic branches of the pneumogastric nerve, by which the stimulus is transmitted to the spinal centre, and thence reflected through the splanchnic system upon the discerning cell-system of the liver; and that, by parity of reasoning, the sugar, in my human experiments, entering either in an entirely unchanged, or in a partially unchanged form, into the portal system, acted in the same manner as an irritant upon the hepatic branches of the pneumogastric nerves.—*British Medical Journal*.

M. Piorry was of opinion that sugar is indispensable to the maintenance of life (he founds this opinion upon the researches of MM. Dumas and Cl. Bernard), and on this account he thought that diabetic patients ought to be supplied with sugar, and substances which are transformable into sugar, in order that they may repair that unnatural waste which is consequent upon their malady. With this view, he brought the following case before the French Academy of Medicine:—

Case.—The patient is described as being under M. Piorry's care in La Charité (No. 19, Salle St. Anne), and as suffering from diabetes, with very copious secretion of sugar. All the viscera were sound, with the exception of some slight hypertrophy of the spleen. From the 2nd to the 12th of January, ten litres of urine were passed daily. During this time, certain febrile symptoms, which came on in the evening, subsided under the influence of quinine. On the twelfth, the patient was directed to abstain as much as possible from all fluids, and to have a daily double quantity of meat, with one hundred and twenty-five grammes of sugar-candy. This treatment was persevered in on the following days, and the result was that the quantity of urine fell to two and a-half litres in the day—the specific gravity remaining the same, namely 1.060. On the 2nd of January, five hundred grammes of sugar had been lost in the twenty-four hours; from the 12th to the 24th, notwithstanding the addition of the sugar-candy, the daily loss of sugar was not more than one hundred and thirty-five grammes.

EXTIRPATION OF THE ENTIRE CLAVICLE.

Dr. C. R. S. Curtis, of Chicago, reports (*Am. Jour. Med. Sci.*) a case of successful removal of the entire clavicle, for an osteo-sarcomatous tumor, involving its middle third and external portion of sternal extremity. The patient had previously had syphilis.

SUCCESSFUL OVARIOTOMY.

Dr. H. N. Bennett, of Ct., reports (*Am. Jour. Med. Sci.*) a case of successful ovariectomy in a patient, æt. 24 years; unmarried. The tumor was a multilocular cyst, seventeen inches in circumference; her recovery was rapid and complete.

SUCCESSFUL REMOVAL OF BOTH OVARIES.

A case is reported (*Am. Jour. Med. Sci.*) in which both ovaries were successfully removed by Dr. Potter, of Geneva, N.Y. The patient, æt. 25 years, married, had suffered two years from a tumor of the right ovary. The left ovary was also diseased, but not greatly enlarged.

A CASE OF CONGENITAL MACROGLOSSA.

By Dr. RICHARD VOLKMANN,

Zeitschrift für Rationelle Medicin, viii. Band.

An abnormally small tongue or congenital deficiency of that organ are conditions which are found in different cases connected with a rudimentary or imperfect development of the jaw.

In contradistinction to this is a congenital enlargement of the tongue, as frequently observed in cretins and imbeciles. In these cases the organ is remarkably thick and broad, and lies between the teeth. This overgrowth is the consequence of the arrested development of contiguous parts, and is only to fill up a void.

Among cretins, very frequently, an abnormal hollowing of the gum exists, and a vaulted or arched state, allows of the tongue from the first acquiring larger dimensions, particularly as regards thickness.

This abnormality of the gums may depend on defective development of the anterior lobes of the brain, and, accordingly, midwives and nurses are in the habit of prognosticating that a child with a "frog-tongue" will be of weak intellect. Essentially different from these forms of hypertrophy is that which, attaining the highest degree, frequently demands surgical aid, and which *par excellence* is designated Macro glossa. In an inaugural dissertation (*Ludovicus de Lewo de Macro glossia seu lingua prolapsa*) a considerable number of cases were brought together, and since (1845) twelve have been added by the author. But notwithstanding the number of cases reported, very few anatomico-pathological observations have been made upon Macro glossa. In the course of the past summer an opportunity was presented to Dr. Volkmann of examining a case of congenital Macro glossa, and investigating anatomically the portion of the organ which was extirpated.

A. K., eight and a-half years of age, lively, with good mental powers, being able to read and write well, was born with a slightly enlarged tongue, which, however, did not prevent her from sucking. During almost the whole of the first year of the child's life she laboured under an aphthous affection of the mucous membrane of the mouth and tongue, by which the tongue more and more increased in size, and finally extended beyond the limbus alveolaris. At the age of fifteen months the first teeth appeared, and the child learned easily to speak—the tongue appeared not to increase further. From the third year there were frequent ulcerations, desquamations and hæmorrhages, and a constant and increasing flow of saliva. Now the tongue increased more and more in volume, and with augmented rapidity each winter, so that when the child was first seen, the tongue, which was two and a-half centimetres thick, extended four centimetres beyond the lower incisor teeth. The tongue was intensely red, painless; the edges beset with ulcerations, and the papillæ much enlarged. The under jaw was ill-formed, and the teeth so encrusted with tartar as to resemble green balls. The extirpation of the projecting wedge-like portion of the tongue was performed by Dr. Blasius. The operation was followed by brisk hæmorrhage, which was easily arrested by six sutures. In the afternoon of the same day the tongue began to swell. On the next day fever, pain, and marked difficulty of swallowing set in, and the tongue attained a greater magnitude and projected further than it did before the operation. From the fourth day the inflammation abated, and the enlarged part became less prominent, but after all the local reaction had completely subsided, the projecting portion of the tongue was three-fourths of a centimetre broader and one-half a centimetre longer than previous to the operation, and it has not since diminished, so that the advantage of the extirpation is nil. Unfortunately the mother of the child could not be persuaded to have a second operation tried. The microscopic investigation of the extirpated portion of the tongue did not afford anything essentially new. The blood-vessels and nerves were normal, and the former, differing from those observed in other cases, were few in number, and of small calibre. Microscopic examinations of diseased tongues have been made by Weber and Virchow. Two were examined by Virchow: one a recent specimen removed from a girl of two years of age; the other an old preparation which had been kept in spirit since the year 1791. The case was one of remarkable enlargement of the tongue in a girl of twelve years of age. The operation was performed by Cr. Siebold, by means of the ligature. The girl died of pyæmia consequent upon the operation; as in a similar case recorded by Liston. In both, the tongue was very thick from birth, and Virchow arrived at the conclusion, from the examination of the two cases of Macro glossa, that they approached closely to true glossitis, and to

the congenital or acquired elephantiasis. Weber's investigations refer to the case of a young man of twenty-one years of age. The lesion of the tongue was first observed at the age of fourteen, and was said to have come on suddenly after an attack of spasms. The protruding portion of the tongue was excised, but, soon after, under the influence of inflammatory action which did not yield to leeches, &c., a new growth arose, which in twelve days required that a second operation should be performed. The examination exhibited the tissue of the tongue in its normal state, with the exception of a strong fibrous membrane at the under surface, from which bands passed between the fibres of the lingualis, hyoglossus, and genioglossus, presenting a remarkable analogy to what was noticed in the portion of tongue examined by the author.

The inflammatory nature of Macroglossa is in the highest degree supported by its clinical history. In general, at birth, an enlargement has been observed, but nothing remarkable. Hodgson saw enlargement of the tongue commence in the first year; Humphrey in the second; Sedillot in the fourth; Regus in the eleventh; and Weber in the fourteenth; and for these cases were assigned, generally as a cause, a mechanical or chemical injury, or an acute inflammation of the mucous membrane of the mouth. There is no essential difference between the two forms of Macroglossa—the acquired and the congenital. Both may be marked by suddenness of growth, occasional pain, and there may be long intervals, even years, during which there is a stand-still in the development. Relapses have been noticed by Humphrey, Wagner, Weber, and also in the case now detailed.

COLD APPLICATIONS IN PNEUMONIA AND PLEURITIS.

Professor Niemyer, in his clinical communications, recommends cold to be applied externally in the treatment of pneumonia and pleuritis. The results of extensive experience in the Hospital of Magdeburg have confirmed him in the belief that cold applications are not merely devoid of danger, but that they are as efficacious as in inflammations of external parts. The cold produces marked amelioration, and the patients—even children—urgently request that the application be renewed as soon as it has become warm.

Professor N. does not attribute to cold applications the power of cutting short the above-named diseases; but he believes that the exudation process ceases at an earlier period; that the fever is sooner brought to a close; and the patients are thus frequently enabled to return to their occupations seven or eight days before they could do so under other treatment. Neither metastasis nor catching cold have been noticed as a consequence. In late stages of pneumonia and pleuritis, (acting on the fact established by the best pathologists—that there is diminution of the blood corpuscles, especially in old persons) he administers feruginous remedies with great advantage.—*Prager Vierteljahrsch.*

UREA IN THE FLUID OF RANULA.

Dr. E. H. Wolf has established the presence of urea in ranula, in no inconsiderable quantity. This fact disproves the notion that the ranula fluid is accumulated saliva, a theory held by many pathologists; for in normal saliva urea does not exist.—*Deutsche Klinik.*

SOFT SULPHUR FOR STOPPING TEETH.

M. H. Henriot has successfully employed soft sulphur as a substitute for the numerous cements used for decayed teeth. This substance, which acquires in a little

time after its introduction in the cavity, a considerable degree of hardness, is insoluble in all bodies in the cold. It is not attacked by any of the alimentary substances or dentifrices, and is easily and quickly applied. All that is necessary is, to put some fragments of sulphur—or better, some washed flowers of sulphur—in a glass tube sealed at one end, heat it over a spirit lamp, and pour into cold water. The sulphur should be heated to a temperature above 390° F., when we obtain, on pouring into cold water, a spongy mass, brown, soft, and elastic, which is called soft sulphur. It is known that the melted sulphur, if the temperature be sufficiently high, becomes thick and viscous, which is then again rendered fluid. The preparation thus obtained is introduced in the form of little balls, which are pressed into the decayed tooth. The soft sulphur may be prepared in two minutes.—*Journ. des Connaiss. Méd., and Pharmaceutical Journal.*

ON THE DRYING OF PLANTS FOR THE HERBARIUM.

By MR. CHARLES WRIGHT.

Instead of pressing my specimens on the outside of the sheets of paper, I put my specimens *within* a sheet of paper—one or two if large, and many if small—and *never move them from within that sheet till they are dry.* Thus, then, there is no risk of breakage, which will inevitably happen in some cases, during the process of drying, if they are removed from one paper to another, especially such as are resinous or milky. I have also used, during the past winter, a very thin paper, of small size, for the collection of mosses, *Hepaticæ*, and other very small or delicate plants, and have found it very convenient. I could thus keep perfectly distinct twenty or thirty species of these little plants, besides gathering four or five quires-full of larger plants in a day's excursion. I cannot imagine how I could have done it with a vasculum. I carry in my portfolio a piece of thin India-rubber cloth, for its protection in case of rain.

I also employ a peculiar method for making handsome specimens of such succulent plants as *portulacacæ*, *piperacæ*, orchids, &c., though it may be no new thing to others. As soon as possible after such plants are collected, I pass over them a hot flat-iron, thus partially scalding them; they then dry rapidly, the parts adhere together as well as any plants, and they preserve almost entirely their colour—some do so perfectly. I would advise a collector—especially one going to tropical countries—to provide himself, for this object, with a plate of copper, half an inch thick, of convenient size, round, or square, or oblong. I would prefer copper, because it retains its heat much longer than iron, and does not rust. I imagine this method might be successfully employed in drying agarics.—*Hooker's Journal of Botany.*

PROTOSULPHATE OF IRON WITH SUGAR.

It is extremely difficult to prevent the oxydation of sulphate of iron; nevertheless, in chemical research, and for use in pharmacy, it is important to have a pure protosulphate of iron. According to M. E. Latour, Pharmacien Aide-major, the addition of sugar preserves this salt from alteration. M. Latour has shown, moreover, from careful analysis, that this salt crystallizes with sugar in a regular manner, and of a definite composition. It is prepared in the following manner:—

200 parts of pure protosulphate of iron are dissolved in 100 parts of boiling distilled water; 50 parts of crystallized sugar (sugar-candy) are also dissolved in 30 parts of boiling distilled water. On mixing the liquors, and rapidly filtering, crystals are deposited between 95° and 100° F. These crystals collected, and dried between folds of blotting-paper, should be pre-

served in a dry bottle. By concentration a fresh quantity of this salt may be obtained. The crystals are oblique rhombic prisms, having the composition—

Protosulphate of iron	...	...	54.57
Water	...	...	32.5
Sugar	...	...	12.93
100.00			

—*Gazette Médicale de l'Algerie, and Pharmaceut. Jour.*

POWDERED CHLORATE OF POTASH AS AN APPLICATION TO ULCERS, &c.

For some time past, at the Metropolitan Free Hospital, Mr. Hutchinson has employed the powdered chlorate of potash as an application to cachectic ulcers. In most cases it appears to exert a very beneficial influence, speedily inducing cicatrization; and it is very convenient of use. The cases in which it has best suited have been some of ulcers of the leg, open buboes, simple sores on the skin of the penis, and cracked nipples: in the latter it answers admirably. The salt should be powdered very fine, and dusted into the sore with the finger. It produces sharp smarting for a short time, but the pain soon subsides. In most cases suitable for its use it is also desirable to prescribe its internal administration; but with a view to making the experiments more conclusive, in the cases upon which Mr. Hutchinson founded his opinion of its efficacy, no other treatment was adopted.—*Lancet.*

ULCERATED LARYNX IN TYPHOID FEVER PRODUCING GENERAL EMPHYSEMA.

At a late meeting of the Pathological Society of London, Dr. Wilks exhibited a specimen of *Ulcerated Larynx in Typhoid Fever producing general Emphysema*. It was thought to exemplify an occasional complication of typhoid fever. The case was one of a boy who lately died, under Dr. Addison's care, at Guy's Hospital. About the twelfth day of his illness his neck was observed to be emphysematous, and in a few hours the face, arms, chest, &c., were in a like condition. This continued for ten days, when he died. Besides the usual affection of the ileum, there was found at the back part of the larynx a sloughing ulcer, which communicated with a space between the œsophagus and trachea. Through this the air had penetrated into the mediastinum, and so to the general subcutaneous tissue of the body. Considering the rarity of emphysema from such a cause, the case might be thought to be unique or accidental, but (Dr. Wilks believed) for various reasons it was probably not so. In the first place, emphysema had been alluded to by various writers as an occasional occurrence in typhoid fever, though the cause was unknown; and secondly a peculiar disease of the larynx had been described by various pathologists as a part of typhoid fever. In all probability, then, these two affections stood in the relation of effect and cause; and therefore, although this was the first case of the kind he had witnessed, it afforded, in all likelihood, an explanation of an occurrence which rarely, though sometimes happens in the course of typhoid fever.—*Lancet.*

HEALTH OF LONDON DURING THE WEEK ENDING SATURDAY, DEC. 19TH.—The deaths registered in London, which were 1428 in the first week of the current month, and fell to 1240 in the second, were in the week that ended last Saturday (Dec. 19th) 1234. The deaths from disease of the respiratory organs (exclusive of phthisis) were 298; from bronchitis, 159; pneumonia, 107; and cases in which influenza is specially mentioned, 15. The mortality from phthisis was 161. Hooping-cough was fatal in 40 cases. The deaths from small-pox were

3, and since the present year began the weekly average has been only 3. Last week measles, scarlatina, and hooping-cough produced very similar numerical results, for the first was fatal in 45 cases, and each of the two latter in 48. 14 young children died of croup, and 13 persons of diarrhoea.—The births of 936 boys and 894 girls, in all 1830 children, were last week registered in London. In the ten corresponding weeks of the year 1847-56 the average number was 1503.

YELLOW FEVER IN LISBON.—Advices from Lisbon state that the fever appears to be gradually passing into the period of decadence. The colder weather has produced a beneficial effect. M. Suquet, a physician nominated by the French government to study the prevailing epidemic, had arrived, accompanied by M. Guyon, who is known as the author of several works on epidemics. They had visited some of the hospitals, and common report affirmed their opinion to be to the effect that the disease is caused chiefly by the unwholesome state of the sewers, and the general dirty condition of the city, and that it is of the typhus class. On the 26th ult. the new cases were reported 159, and 65 deaths, in houses and hospitals; on the 25th there were 149 cases and 32 deaths; and on the 24th, 179 cases and 64 deaths. It has, since the 26th, gradually declined, and has now almost entirely disappeared.

DEATH.

Died of yellow fever, on the 1st of November, at the Naval Hospital, Jamaica, DANIEL O'CONNELL O'SULLIVAN, Assistant-Surgeon in the Royal Navy, the beloved and affectionate son of Dr. O'Sullivan, of Clane, County Kildare. He received every treatment that humanity and skill could suggest from Dr. Forbes, the surgeon of his own ship, and his two countrymen, Burke and Wallace. Every tribute of respect was paid to his remains, not only by the crew of his own ship, but of every vessel in the harbour, affording some consolation to his afflicted parent, and abundant proof of the estimation in which he was held.

PUBLICATIONS RECEIVED.

Alcohol, its Place and Power. By Professor Miller.
The Plague of Athens, translated from Thucydides, with remarks explanatory of its Pathology. By Charles Collier, M.D., F.R.S. London, 1847.
Pneumonia, its Pathology and Treatment. By E. Read, M.D. (From Nashville Journal of Medicine and Surgery).
Introductory Lecture on Forensic Medicine. By Dr. MacSwiney.

COMMUNICATIONS RECEIVED

From Mr. Byrne; Longman & Co.; Dr. D. Kelly; Dr. Donellan (with enclosure); Dr. Pollock; Dr. Drennan; Mr. Bodington; Mr. Collis; Dr. Fraser; Dr. Banon; Mr. Adams; Dr. Campbell; Dr. O'Ferrall.

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CLINICAL LECTURES.—SESSION 1857-8.

By Dr. O'FERRALL,

First Medical Adviser to the Hospital.

Treatment of Anthrax by pressure—Complication with Bronchitis—Internal and External Pathology—their identity in practice.

It is usual to commence the Clinical Session by announcing certain general principles of Medical Education and study. I have not observed that the compression of many topics into a single lecture is productive of much advantage to the student. They are soon forgotten, and therefore not available when the moment for their application arrives. I have adopted a different course, and have had no reason to disapprove of the arrangement. Instead of confusing you by a compact body of principles, I shall take each topic separately when an occasion arrives for testing or illustrating its value. An exposition of the mode of study adopted in this hospital, when thus spread over the whole course, will be, I trust, more intelligible, and the impressions more durable and useful.

I shall not occupy your too limited time with elementary instruction; you will hear those things from the different professors of the schools—from men whose ability and research will leave nothing to be desired on this matter. The period allotted for medical studies in the present day is far too short to make a good practitioner. I suppose this cannot be altered now. Speed is the rule in everything, and perfection is, perhaps, the exception. I shall, therefore, not cause you to listen here to what you can hear elsewhere. I shall confine myself to directing your attention to those matters which books cannot teach, and which, if now overlooked, may be sorely missed at some future day. You shall be taught to observe that which is every day before you, and you shall have

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the benefit of any lesson it is calculated to teach. Every case, however apparently simple, is capable of confirming or correcting some opinion of the schools, and, it may be, of suggesting an inquiry which may lead to the development of some general facts of great value in practice.

The first topic illustrated by our daily intercourse with disease, is the inevitable union of medicine and surgery, or the identity of internal and external pathology as the object of our study. I have been accustomed to help you to recognise this identity by selecting from the cases before you in the wards, at the moment of each lecture, one of each variety, and at the same time to point out the manner in which they mutually throw light upon each other.

At a time when the College of Surgeons examines the candidate for diploma as to his knowledge of internal pathology and therapeutics, as well as in surgery, it is unjust to the pupil to deprive him of the means of acquiring the information required by the examiner. The college provides for his elementary education by a course of lectures on the practice of medicine, delivered annually by Dr. Benson, who ably fills that chair. The hospital should, in accordance with this plan, provide for the bedside education of the pupil. You will, I trust, find here all the aids and apparatus by which, with a reasonable attention on your part, the cases in our wards can be investigated and understood.

The case to which I shall now direct your attention presents in the same individual an example of internal and external pathology, either of which lesions would deserve your especial consideration. There was congestive bronchitis of an urgent character, and there was, on the right side of the lumbar region, a large and painful anthrax.

Case.

Anne Hanlon, a delicate woman, *æt.* 64, was admitted, suffering from cough, oppression of breathing, sleeplessness, and intense burning pain, referred to the seat of an anthrax on her back. There was copious, though often difficult expecto-

ration, of muco-purulent matter. Respiration laborious—thirty in a minute; pulse 110, regular, weak, and very compressible; tongue coated in the middle, but not dry; urine pale amber, 1·020, moderate in quantity, depositing lithates. The chest is not dull on percussion at any point, but every variety of bronchitic rales—sibilant, mucous, and sonorous—are heard throughout. There is no displacement of the heart, which has a weak impulse, and comparatively feeble first sound. Her posture in bed is most distressing. The dyspnoea causes her to prefer the sitting posture, but the anthrax prevents her leaning backwards. She therefore inclines to the prone position, leaning against pillows, which support her trunk. The anthrax, on examination, presents three or four jagged openings, covered by thick puriform exudation. When this is removed, the usual appearance of sloughy cellular tissue is visible underneath. The base of the swelling, which is of a purple-red colour, is hard and brawny to the touch, and measures three inches in the vertical direction, and four inches in the transverse diameter.

A glass of port wine was given to her, and free crucial incisions were made through the swelling, from one extremity to the other of its base. She was directed to take strong beef tea, and any other nourishment she could fancy, and to have a glass of port wine every fourth hour. She was also directed to take decoction of bark with ammonia in effervescence, every third hour.

On the following day she expressed herself much relieved. Respiration was 25; pulse 100; she had sleep; the burning pain of the anthrax had not returned since the incisions were made. The parts were dressed with warm balsamic applications.

On the third day after admission her breathing was less oppressed, notwithstanding the uneasy position which the anthrax compelled her to assume. Expectoration muco-puriform and free. Pulse 90. The margin of the anthrax more painful, and has extended half-an-inch every direction. Its boundaries are marked by a pencil of nitrate of silver.

On the fourth day the pectoral symptoms are improved. Respiration 25 in a minute; pulse 90. The boundaries of the anthrax have extended at least an inch, and are of a dusky deep red colour. The sloughy cellular tissue projects freely from the wounds. The quantity of wine is increased.

On the fifth day after her admission the pulse was moderately firm, 84; expectoration diminished and free; takes chicken with appetite, and enjoys her wine; urine pale straw colour. She complains, however, of burning pain in the anthrax, the boundaries of which had now extended one-and-a-half inch. The colour of this extension was dark red, tolerably well defined; the swelling was firm to the touch, but pitted slightly to stronger

pressure; it had, in fact, all the characters of the original disease. Now, here was an extension of the anthrax, at a moment when the tonic and stimulant treatment was exerting a beneficial influence on the thoracic lesion, and on the general circulation. If the crucial incision had not been made, it might be thought that the extension was due to that omission. The benefit derived from the proceeding proved, however, to be of short duration. The central organ of the circulation and the capillaries required support and stimulation, and the indications were successfully fulfilled. Notwithstanding all this, the anthrax was, for the last three days, extending its boundaries, and the characteristic pain, if unrelieved, must soon again begin to destroy her rest. It was now a question whether fresh incisions should be made, with a view of arresting its further progress. An anthrax in this situation, as you have repeatedly seen, will sometimes acquire such dimensions, and commit such destructive ravages, as few constitutions are able to repair. We then suppose ourselves called on to make fresh incisions, but we know from experience that such proceedings however bold, are not always conclusive, and that a few days more may develop a further manifestation of the mischief.

I now resolved to promote the capillary circulation in the parts by mechanical support, and to endeavour to accomplish by pressure what a bandage would do in a varicose leg.

Having marked the boundary line by nitrate of silver, I caused the red and swollen surface, as far as the incisions, to be strapped firmly with soap plaster, spread on thin leather. The centre parts were dressed as before.

Sixth day.—The local improvement was most remarkable. The parts which on the day before were deep red, were now pale, and the swelling was nearly gone; the burning pain had also subsided, and the patient felt considerable relief. It was evident that the progress of the disease was arrested by the pressure.

From this period the convalescence was progressive. The parts were supported by the straps of plaster, and no appearance of further extension was observed. The separation of the sloughy cellular tissue took place in the usual way, leaving a granulating surface behind.

The bronchitic symptoms in this case had also steadily diminished; and a state of complete convalescence was established.

Let us now inquire what practical lesson this case is calculated to teach. As a case of circuncular inflammation, it shows that a sound principle of treatment may be carried out by various, and often simple expedients. Whatever error exists in the constitution, and whatever morbid element may require to be eliminated, it seems clear that one therapeutic principle must be kept stea-

dily in view, namely, to sustain and promote the capillary circulation. In treating the various examples of internal pathology which present themselves in our wards, this indication is fulfilled by internal remedies alone, and it requires all our experience to enable us to make a judicious selection. Mercury may be the best medicine in one instance, bark in another, and ammonia may be associated with either, according to the exigencies of the case. We rouse the energies of an enfeebled heart by stimulants, and the circulation in the capillary system where morbid changes are impending is thus promoted and sustained. In managing examples of external pathology, we are occasionally enabled to employ an additional agent, the value of which is well shown by the case before you. In this case tonics, stimulants, and nutritious diet were in full and beneficial operation. The fever had diminished; the pectoral symptoms had improved; but the anthrax began to extend its boundaries a second time. Something was still wanting to maintain the vitality of the superficial parts. The effect of pressure was immediate and remarkable. The morbid sensibility which caused the patient to shrink from manipulation was at once diminished by well regulated pressure. The following day the other phenomena of the disease, hardness, swelling, and dusky redness, the results of capillary congestion with infiltration, occupying an area of one inch and a-half, had entirely disappeared. Nothing could be more evident than the utility, in this case, of the *treatment of anthrax by pressure*.

As an example of congestive bronchitis in a debilitated subject, this case is not devoid of interest. It shows that bark may be advantageously added to the stimulant treatment in daily use. I have heard apprehensions expressed in such cases, lest the expectoration should be rendered less easy during its administration. I have not found bark to produce such an inconvenience; and some of you are aware that in the congestive pneumonia of the last four years, many cases in our wards were successfully treated by large doses of bark, in every form in which it is administered.

As illustrating the futility of attempting to disunite the studies of internal and external pathology, this case has an additional value. You have been taught to study bronchitis, and you, therefore, took a lively interest in the diagnosis and treatment of this case. You have been taught to study anthrax, and were, therefore, equally well prepared to estimate the principles on which it was treated. Either of those lesions, if seen in separate beds, should have suggested to the practitioner a principle of treatment sufficiently obvious in its nature; but seen together, in the same individual, it was impossible to mistake the vital conditions and therapeutic indication common to both. There was an example of bronchitis, or internal pathology, and of anthrax, or external pathology; and yet there were, in this case, not two patho-

logies but one pathology—not two indications of treatment, but one indication of treatment, namely, to sustain and promote the capillary circulation.

In fulfilling this indication in practice, we address our remedies either to the centre or periphery of the circulation, or to both at the same time. In all cases requiring it, you examine the force of the heart, and maintain its vigour by all the resources of your art. The means which you employ for this purpose will often influence beneficially the periphery or capillary system. When practicable, you address your remedies to this system by local means; thus you remove certain cases of congestion in the conjunctiva of eye by *vinum opii*, or solution of nitrate of silver; and in *hæmatemesis* you remove the congestion on which the hæmorrhage depends by the stimulus of turpentine; in the case now before you an additional agent was employed, and the congestion was removed by pressure. You cannot fail to recognise a common principle in the application of those various agents, and you will see the identity of this principle, whether you treat a case in medical or surgical practice. You cannot know too much of *both*, if you wish to be a master in *either* department, since they mutually throw light upon each other. He who has most carefully observed the congestions, infiltrations, suppurations, ulcerations, thickenings, contractions and malignant diseases of visible parts, will most easily comprehend analogous changes in internal organs. Due regard being paid to the function of the organ engaged, the same vital conditions may belong to both, and it is the just appreciation and management of those vital conditions which makes the skilful practitioner. Study external pathology then, if you wish to facilitate your progress in medicine; and, if you aspire to the reputation of a skilful surgeon, lose no opportunity of acquiring a comprehensive knowledge of internal disease.

ON ULTIMATE FACTS IN PHYSIOLOGY, THEIR IMPORTANCE AND PROPER POSITION.

By PROFESSOR ALISON,

Edinburgh University.

PART II.

One very general peculiarity of the essential conditions of life, both in reference to health and disease, in all animal structures, may be stated as truly distinctive, viz, that—even independently of what is now stated by Braun and others, particularly German physiologists, of the existence of *Metamorphoses*, at some period of the existence of all animal structures—the *continued vital action* of every part of any one such structure is only kept up by *incessant change* of the matter composing it; inasmuch that when we speak of the *identity*, *e. g.*, of the agency of the excreting

organs by which what Dr. Prout called the "re-productive assimilation," essential to the daily *egesta* of the animal frame is kept up—or of any portion of the brain or organ of sense, by which its mental acts are served, we must use this term *identity*, with reference either to place, or time, or substance, in a sense quite different from that, in which we apply the term to any of the objects of merely mechanical, or merely chemical science. All that is truly *the same* in any of the organs of animal life at distant periods of life, is only the *relation*, as Dr. Brown, and as Professor Whewell and Sir J. Herschell have stated it, to that organ—and to the mental changes, which by the arrangements of Providence are connected with it—of certain combinations of chemical compounds, not now existing there, but which, trusting to our intuitive belief in the persistence of the laws of nature, we believe will exist there, when, according to the memorable expression of St. Paul, what is now "bare grain" shall receive "a body as it *hath pleased* God!" and to every seed his own body." And here we have undeniable proof of the *matter* concerned being frequently *changed*, while the *properties* indicated by the vital relation to other matters remain *the same*.

The most striking example of this kind which the living human body presents is, as I think, the change wrought on the body in the process of Vaccination—*e. g.* at the age of a few weeks, preventing—perhaps still more unequivocal when it does not prevent, but only *modifies*—the effect of the poison of Small-pox applied, perhaps, *half a century after*. In this case we are certain, that the blood of the vaccinated child on which this change—negative, but not the less important—has been wrought, is repeatedly decomposed, and repeatedly replaced by fresh combinations of the same chemical elements, continually passing through the human body, and subjected to the agency both of the nutritive and destructive assimilation there for fifty years. It is literally scattered to the winds, and exists no longer as any organic compound, when the poison exciting small-pox is applied; but we know that *its influence*—*i. e.* the relation of the infant's blood, which has been affected by cow-pox, to the poison of small-pox—exists and *may be reckoned on, almost with certainty*, as fitted to act like a charm (certainly as no other agent in nature can) on the specific inflammation excited by that poison, applied fifty years after; so as, not probably to diminish its extent over the surface, nor to lessen the febrile symptoms first produced by it, but to *shorten its duration* and *alter its effect* from a suppuration of eight days, to a vesication and incrustation of four or five days' duration; and almost certainly to divest the febrile action resulting from it of danger.

There are various facts of essential importance in the animal economy, besides the essential phenomena of life, organic or animal—*e. g.* the different kinds of influence of *habitudinal* action; the influence

of *age*; the influence of *mental emotion*, both on the fundamental function of nutrition, and on the secretions of different parts; the influence, perhaps, most curious of any, of certain *feelings and desires* which may be excited during pregnancy, not merely on the existing condition of the foetus in utero, but on the apparently *acquired* instincts, *habits, and diseases* of the offspring—which may be said to belong to the same class, because they indicate the relation of living animal matter to other matter, not now existing anywhere as an organic compound, but which is brought into existence as such in that body many years subsequently, and then submits to the influence of a cause applied fifty years previously, out of the usual course of its existence, and with which, until that time, it has had no connection.

The whole phenomena, usually vaguely classed together, under the name of Instinct, particularly of those instinctive actions of which any man may be sensible in himself, on such occasions as throwing forward his hands when falling on his face, or in violent fits of coughing or sneezing—where complex actions are performed with perfect accuracy, including the changes produced by mental emotion on many of the involuntary as well as voluntary organs, on the circulation and on the nourishment of the countenance especially; and the intuitive interpretation of these prior to all experience, are in like manner, cases of physiological phenomena which we can trace to Laws or Powers of the existence and useful effect of which we are certain, most of the conditions necessary to which we now understand; nay, of the exercise of which in ourselves, in some instances, we are mentally, as well as physically, spectators, but which are so clearly *exceptions* to the ordinary laws of nature, regulating the connection of our minds with our bodily organs, that we should feel justified in applying to them the term *impossible* or *miraculous*, according to the circumstances alleged to attend them in individual cases, if we did not know them to be of frequent and uniform occurrence under those conditions. And the same observation may be applied, as I think—distinctly and precisely, and after making due allowance for all sources of fallacy—to a certain number of the cases to which the term *spectral illusions* is usually applied; especially if these phenomena are regarded in connection with those recorded at different times and places under the names of somnambulism, animal magnetism, double consciousness, &c., and with the profound reflection of Brown—to which we ought to observe that Chalmers has recorded his cordial assent—that the mind connected with any living body is to be regarded, not as possessing different powers or faculties, but as always *one and the same*, although existing in the different *states* of which our consciousness informs us, and to which we give the names of Sensations, Recollections, Thoughts, Emotions, Desires, Efforts of Will, following one another according to certain assignable but variable laws;

but with a *degree of rapidity* which a little reflection will show to be utterly and *absolutely incomprehensible*, just on a footing with all other indications of Infinity or Eternity. Such reflections will be found to fix the objects and the boundaries or limits, of the different inquiries connected with living animals, more satisfactorily than either physiologists or professed metaphysicians have yet observed.

CLINICAL REPORTS AND OBSERVATIONS ON MEDICAL CASES.

By J. T. BANKS, M.D.

King's Professor of Physic, and Physician to the Whitworth and Hardwicke Hospitals, &c.

Bright's Disease.—Symptoms of Ureal Poisoning. —Ulceration of Intestines.

A woman, aged 24, married, and the mother of four children, was admitted into the Whitworth Hospital on the 22nd of September. Her health, according to her statement, had been uninterruptedly good up to the occurrence of her present illness, and her habits had not been intemperate; but her circumstances were such as did not admit of her being comfortably clothed or well nourished. She was frequently exposed to cold, and to this she attributed the malady for the relief of which she sought admission into hospital. She had not recently, nor, indeed, within her recollection, been the subject of scarlatina, nor any other exanthematous disease. The young woman did not appear to be a person of strumous diathesis, nor had she, as far as could be discovered, an hereditary taint. All the functions seem to have been regularly performed, and there had not been anything unusual connected with the period of utero-gestation, or with her confinements. She had been unwell for some days previous to her being received into hospital. The "debut" of the disease was marked by chilliness of the surface of the body, but not actual shivering, followed by heat of skin, pains in the back, sickness of stomach, and diminished secretion of urine. Such was the group of symptoms detailed to us on the day she came into hospital. She was now puffy about the eyes, and the ankles and legs were œdematous; the skin dry, the pulse rapid, thirst urgent, but the stomach intolerant of any large amount of fluid. The urine was considerably less in quantity than natural; the specific gravity 1.020; it was albuminous, and a microscopic examination revealed the presence of blood-corpuscles, fibrinous casts, and epithelial scales.

A minute detail of the progress of the case at this period is not necessary for the present purpose, inasmuch as there was nothing worthy of particular remark in its course, nor did any special complications arise to retard recovery, which

was more rapid than is usual in similar cases. She left the hospital on the 16th of October, no trace remaining of the dropsical effusion of the face and ankles, and the urine no longer presenting indications of an abnormal state of the kidneys. A due amount of urine was secreted—indeed rather above than below the quantity observed in perfect health. The albumen had altogether disappeared.

Notwithstanding the removal of the dropsy, and the subsequent restoration of the renal secretion to a state indicating with more certainty an improved state of things, still she was much debilitated, and presented that appearance which so clearly indicates a diminished amount of the red corpuscles of the blood—a change, it may be observed, which renal disease is capable of producing in a shorter time than one would be disposed to believe possible. A more protracted residence in the hospital would have been desirable, but anxiety to return to her family induced the woman to disregard the advice she received on this point. With respect to the remedial means adopted, and which were productive of such satisfactory results, they may be briefly summed up. They consisted of the means usually resorted to in renal dropsy of recent origin, bearing in mind the necessity there exists of giving repose to the kidneys, which may be looked on as the suffering organs. Vomiting, which was one of the most marked symptoms on her admission, was encouraged at first, by directing her to drink tepid water in abundance. The bowels, which were constipated, were freely and repeatedly acted upon by moderate doses of the compound jalap powder. The skin, which at the commencement was hot and dry, poured out fluid in considerable quantity under the influence of the vapour-bath, followed by diaphoretics. The disease yielded to treatment, and convalescence was established; but the patient passed from under our notice before there was time to administer ferruginous remedies, the necessity for which the impoverished state of her blood manifestly indicated.

Soon after leaving hospital, this woman being again exposed to the same causes, so fertile in the production of renal disease—namely, cold and moisture, conjoined with irregularity of life, and residence in an unhealthy locality—was a second time attacked with symptoms closely resembling those which existed on the former occasion of her seeking admission into hospital, and after a few days she was admitted for the second time (30th October).

The disease now presented a far more serious aspect. The whole body was anasarcons, and to a considerable amount; the dropsical effusion was not confined to the cellular tissue, the peritoneal cavity was also the seat of effusion; the respiration was rapid; there was marked anæmia; vomiting frequent, and most distressing. The urine was below the ordinary standard in quantity, and albuminous, but did not now contain blood; the co-

lour did not differ from normal urine, but it was not transparent, and it did not throw down a sediment. After three or four days diarrhoea set in, which, with vomiting, continued almost uninterruptedly.

For some time the anasarca increased; the effusion into the peritoneal cavity attained an amount which is rarely met with unless the liver be diseased. The vomiting and purging continued. The secretion of urine was not at any time very notably diminished, and generally the specific gravity was about 1.012; it was sometimes above this, never below it, and the colour continued to differ little from that of health. About the middle of November, a fortnight after admission, the dropsy arrived at its maximum, and the patient then presented an appearance rarely observed in similar cases; the enormous swelling of the body rendering even motion in bed extremely difficult. From this period until the end of November the dropsical effusion gradually subsided, so that at this time there was a marked change; but the general symptoms, and above all the gastro-intestinal, remained in all their intensity.

At midnight on the 30th November, she complained to the nurse of a feeling of numbness and tingling in her left hand, which continued about five minutes, and then crept upwards. It was observed that her mouth was drawn to one side, and soon general convulsions supervened, which, with short intervals of repose, lasted for three hours; then a longer interval of tranquillity, and again a repetition of the general convulsive movements. From twelve o'clock at night until six in the morning the fits continued, with intervening periods of quiescence, during which the breathing was stertorous. There had not been any extraordinary diminution in the quantity of urine passed during the preceding twenty-four hours. When seen at ten o'clock in the morning she answered questions correctly but slowly; she complained of headache and difficulty of collecting her thoughts: her memory, too, was defective, and vision impaired. She said she saw flashes of light, and sometimes dark spots and like a cloud before her eyes. On examination, the pupils were not found to present any abnormal appearance, and they were readily susceptible of the influence of light.

On the 1st December it was reported that she passed a quiet night; there had been no headache, but she complained of her head; the face was pale; pulse very feeble and rapid; the tongue very red and dry. She passed about eight ounces of urine, which contained a large amount of epithelial scales, and some casts of the tubes, with exudation cells. No diminution of the gastro-intestinal symptoms.

On the night of the 2nd of December she felt a numbness of the left foot, and this sensation gradually crept up to the body, which was all she remembered. She then had three fits of general convulsions, each lasted from ten to fifteen minutes, and was followed by a heavy sleep, with stertorous

breathing. Towards morning she slept quietly, and on awaking, did not complain of headache, but her vision was still weak and had been from the first seizure; and she again saw flashes of light or sparks before her eyes. The urine was now more abundant, and the specific gravity higher (1.018). From this time until her death there were no head symptoms. The dropsy, which had very nearly disappeared before the first accession of cerebral symptoms, was now completely gone; her strength rapidly failed under the influence of the diarrhoea and vomiting, which continued to the last moment of her life. For the last few days blood was discharged from the bowels; and shortly preceding her death, which occurred on the 17th December, in considerable quantity.

On examination of the body not a trace of serous effusion into the areolar tissue or into any of the serous cavities, was discovered. The brain did not present any lesion whatever; it differed in no respect from the ordinary healthy organ.

The mucous membrane of the stomach and of the intestinal tube, for a considerable extent, was remarkably pale, but towards the termination of the ilium the membrane presented an appearance of intense vascularity, and scattered ulcers of small size were observable, with numerous patches of blood extravasation. The large intestines were found similarly altered, but to a much less extent; the serous membranes were free from any morbid appearance. The kidneys were very large and pale, weighing upwards of ten ounces each; the cortical part very thick, and of a yellowish hue; the tubules enlarged and filled with a transparent matter containing exudation corpuscles. Parts of the kidney had also undergone fatty degeneration. The other organs did not manifest any morbid change.

I have detailed this case, believing that it is worthy of notice, from the fact of its deviating in some respects from the ordinary course of Bright's disease, such as it is daily presented to our observation.

During the progress of this young woman's malady, we had opportunities of contrasting it with other cases in which renal degeneration existed, but which did not exhibit the same train of symptoms which forcibly riveted our attention in this. In the first place, we were enabled to trace the disease from its earliest stage to its fatal termination, an opportunity not very often enjoyed by the physician. Here was exhibited the renal degeneration consequent upon that condition of the kidney which is known to exist in acute inflammatory dropsy, and which is by some pathologists recognised as the earliest stage of Bright's disease. Without acceding to the doctrine that Bright's disease is *invariably* preceded by hyperæmia and catarrh of the uriniferous tubules, the acute desquamative nephritis of Dr. Johnson, it must be admitted that we frequently observe, or are able to trace the disease back to an *acute* seizure; and I am in-

clined to think that at least as regards the form of renal degeneration in which the bulk of the organ is greatly augmented, and in which the whole duration of the disease, as in the case before us, is short, that here a hyperæmic condition of the kidney pre-exists. The difficulty as to regarding this state of the kidney which appertains to acute renal dropsy, as a stage of Bright's disease, seems to arise from the fact of its so frequently yielding to the judicious application of remedial measures; and the result of repeated observations doubtless proves how well grounded our favourable anticipations are in such cases; but we should not forget the lesson taught by the case before us, and by others, that even if hyperæmia be not a stage of Bright's disease, it at least appears frequently to be the starting point, and to prepare, so to speak, the kidney for that change which eventuates in the destruction of the gland as an organ destined to separate from the blood effete and excrementitious materials.

The treatment had recourse to when this woman was first under our notice, was eminently successful, and I would observe that the favourable termination of the earlier attack was mainly due to the diligent perseverance in diaphoretic remedies; and noticing the influence on dropsical effusions produced by a free action of the skin, reminds me that we are indebted to Professor Osborne for this most valuable suggestion, for though many subsequent writers on renal dropsy, have advocated diaphoretics, still to him is due the merit of first bringing the treatment prominently before the profession, and establishing its efficacy. But to resume the consideration of our case. It appears to me that perfect and permanent recovery might have ensued if the patient could have been protected from those injurious influences to which we have before alluded. The second onset of illness resembled the first, but how different in all respects the course of the disease. Now, the dropsical effusion both into the areolar tissue and into the peritoneal cavity was excessive, and the treatment presented difficulties which were embarrassing and insuperable. The stomach obstinately refused to retain medicine; even the blandest aliments were frequently rejected. One article of food (an egg) was sometimes retained, though all others were rejected, and I may mention that on observing this, my friend Mr. Wyatt, of the Coldstream Guards, informed me that a Russian surgeon told him, that he had known an egg, with a little cayenne pepper, remain on the stomach of persons labouring under the effects of sea sickness, when other food was rejected. "*Fas est et ab hoste doceri.*" With respect to remedies for renal vomiting and indeed for other forms of vomiting, I have found prussic acid answer best, but not in the ordinary mode of administering it: a drop or two on a piece of sugar will sometimes allay sickness in cases in which the stomach rejects every form of draught. Various means were em-

ployed with the view of checking the diarrhœa, but nothing had any lasting effect. A solution of acetate of lead as an enema (ten grains to two ounces of distilled water) seemed to be most effectual. I have observed that antecedent to the supervention of the cerebral symptoms, which are considered by many to indicate uræmic poisoning, the hydropic effusion had notably decreased, or, in truth, had nearly disappeared. This shows how fallacious is the removal of this secondary affection, as an index of a real or substantial improvement. It appears to me that all the attempts to explain the phenomena connected with the nervous system, noticed in many cases of this disease, including the theory of Frerichs, are most unsatisfactory. We meet with cerebral symptoms when the dropsy has attained or is rapidly attaining an extreme degree, and here we encounter the same identical symptoms when the effusion which had been excessive has nearly ceased to exist.

In an adjoining ward we may observe examples of renal disease of long standing, in which the daily amount of solids excreted by the kidneys is much below what it has ever been in the subject of these remarks, and in which the anæmia is far more remarkable, and no cerebral symptoms have appeared. It has even been thought by some that the presence of dropsy acted as a protection against cerebral attacks. Wunderlich relates a case bearing upon this point. The operation of paracentesis abdominis was performed upon a person who laboured under Bright's disease, with hepatic affection, and a large quantity of fluid was drawn off; immediately after the evacuation of the peritoneal effusion, uræmic symptoms set in. In some cases in which we would naturally expect to meet convulsions and coma, they do not occur, cases in which there is complete suppression of urine. Such a strange exception I have met with and reported to the Pathological Society (1851). In the case referred to, the fluid in the ventricles of the brain contained urea. It may be noticed that the termination was unusual in the case we are considering, for the cerebral symptoms passed off, and the cause of death was obviously exhaustion induced by the protracted diarrhœa and the intestinal hæmorrhage.

Ulceration of the intestines has been observed as an associated affection in Bright's disease, by Professor Christison of Edinburgh, but according to my experience it is a rare complication, for although vomiting and diarrhœa are so very common, especially the former, I believe that they are not, unless in exceptional cases, dependent on any organic change in the mucous membrane.

Before bringing these remarks to a close, I would refer to the presence of amblyopia in connexion with this case, a symptom which, although not by any means frequent, I have observed in other cases of Bright's disease. Landowzi first called attention to amaurosis as a symptom of renal

degeneration. and Forget has also cited examples presenting the same phenomenon; nevertheless, judging by the experience derived from the observation of a vast number of cases, we must look upon it as a rare and exceptional event in the progress of the disease.

ADDITIONAL REMARKS ON THE "DRAINAGE" TREATMENT OF ABSCESSSES.

By CHRISTOPHER FLEMING, M.D., M.R.I.A.,
Surgeon to the Richmond Hospital.

At page 315, Vol. IV. of the GAZETTE, (Oct. 15, 1857,) I detailed a case of Chronic Lumbar Abscess, in which Chassaignac's treatment was adopted. In that case the result has been successful; in the present, cure by a similar plan of treatment was checked by a contingency which the surgeon should be prepared to meet; and hence the record of the case may not be inapposite, as the subject is one of practical moment. Moreover, the class of abscess is somewhat peculiar in itself.

Case.—Sarah Dawson, aged 21 years, a servant, and apparently in good bodily health, applied at hospital in November, 1857, with a large swelling, stated to be the result of a fall down a flight of stairs about six weeks previous, when, losing her footing, she struck with considerable force against the lower part of the spine. She felt much pain at the time, but no swelling occurred, neither were there then, nor subsequently, any marks of contusion visible. Pain, rather more of a dull, aching character, than otherwise, continued, and was limited to the site of the injury. At the end of three weeks a fulness attracted her attention, which from day to day became more extensive and more prominent, and ultimately interfered with her ordinary occupations. Her general health continued good. At the date of her admission into hospital she had no ostensible sign of fever; she had had no rigors, no perspirations; in fact, she complained solely of her local ailment. Here, a very large swelling was found; it occupied the whole of the sacral region, encroaching above on the lower lumbar, below concealing the outlines of the coccyx, and on either side involving the buttocks. The integuments covering it had a sort of purplish, marbled hue, presented a uniform, flattened surface, were firmly tense on pressure, and communicated a distinct sensation of fluctuations; there was a well-circumscribed base, and the amount of fluid was so considerable, that it was utterly impossible, by any manœuvre, to feel a solid resistance at the posterior wall of the swelling. I calculated that not less than from three pints to two quarts of fluid must have been confined within this enormous bag. In the absence of any local or constitutional symptoms to demand hurried treatment, and under the impression that

this might have been a large bloody tumor, the result of the injury, and so insidious and comparatively painless in its growth as not to attract special attention, I adopted temporising means for some days; no impression having been made, however, by them, and the woman becoming dissatisfied, I determined on Chassaignac's treatment, and transfixed in the manner described in my last communication, passing the trochars so obliquely that the lowest openings corresponded with the most depending portions near the base of the swelling. I could only procure tubing of No. 4 catheter-gauge size, in place of No. 8, which I had hitherto used. The fluid which shot through the canula, in the intervals of changing the trochar-ends, was somewhat transparent, had a yellowish tinge, and was totally devoid of any disagreeable odour. The same character attended that which at first escaped through the tubings; it rapidly assumed a purulent character; the extensive swelling flattened down; from day to day the discharge ran freely and in large quantities along the tubes, the provisional means heretofore suggested respecting them being adopted; and at the end of ten days so perfect an approximation of the walls of the cavity appeared to have been effected, and so very small a quantity of discharge escaped, that I removed the tubes, allowing a day to intervene between each. At this time the hand passed over the seat of the swelling could detect little more than a thickened condition of integument, the outlines of the sacrum being perfectly traceable. At the end of a week the tube-tract openings appeared to be fully cicatrized; no pain on pressure was experienced in any point; no isolated fulness of any kind was to be detected. The woman was moving about from day to day, and her discharge from hospital was contemplated, when I learned she had a violent rigor. Sharp fever supervened. No special complaint of the back was then made. At the interval of a few days a fresh rigor seized her; pains in the seat of the old complaint then attacked her. On examination, I found one of the tube-tracts had ulcerated, and a thick, purulent, and foetid discharge escaping from it. It was now too evident that a fresh accumulation of matter had taken place. I ran a sharp-pointed bistoury through the opening alluded to, and with a free incision allowed the escape of a considerable quantity of foetid pus. The constitutional symptoms at once yielded, and ultimate recovery took place, as in ordinary cases of the same class.

Remarks.—The subject of abscesses in general, and that of their varying anatomical peculiarities, would form a legitimate inquiry in connexion with the above case; but I prefer, on the present occasion, limiting the few remarks I make as much as possible to the special mode of treatment adopted in it. The case cannot be considered as one of chronic abscess, in the proper acceptation of the term; neither could its history sanction the opinion that it was a bloody tumor from injury, converted

into an abscess. If the former, apart from other considerations, the defined base described would not have existed; and if the latter, the contents and constitutional symptoms would have been widely different. That it was a fair case for the "drainage" treatment the result has proved, its partial failure being most probably owing to neglect. In the after management of cases subjected to this mode of treatment great care is required to keep the tubing and the tube-tracts free from any obstructions; and I have, in my former communication, noted the manner in which this is to be secured. With a view to assist the introduction of the tubing, Mr. O'Neill Thompson, of Henry-street, who manufactures the necessary instruments excellently well, has, at my suggestion, made the blunt end of the shaft-portion like the eye-end of a needle, so that the thread passed through it and attached to the tubing* can be drawn through the canula without the necessity of any additional apparatus. Moreover, in some situations, the advantage of an instrument more or less curved will be found considerable, the steps of the operation being thus materially facilitated. This modification Mr. O'Neill Thompson promises to accomplish for me; and in the neck, in the axilla, in the groin, in the popliteal space, and around joints, I expect the change will be beneficial, if tubing operations are deemed at all advisable.

In conclusion I beg to add, that although I may advocate, in certain of chronic abscesses, the "drainage" treatment, I have yet to learn its propriety of application, or its efficacy, in the acute or in subfascial suppuration. Where I have seen it tried—I might say attempted—it has not answered the expectations entertained. I yet hesitate to give a decided negative to its adoption in such cases, when I reflect on the communication from Mr. Ledwich, in the November number of the *Dublin Quarterly Journal*. In his hands, it would appear, and under his eye, cases of abscess have been treated by "drainage," acute in their progress, and complicated—extremely complicated in their nature, with a success as uniform as it was almost miraculously rapid. The reader will be well repaid by a reference to this communication, and will have the opportunity of seeing a most excellent woodcut of this instrument.

* Mr. Oldham, of Grafton-street, has now a large supply of this tubing at his establishment, having been obliged to procure it from Paris.

LEAD-POISONING OF LACE-CLEANERS.—The death of a young woman at Paris employed in lace cleaning, in whose viscera after death notable quantities of lead were found, has given rise to an investigation as to the means employed. It has been discovered that soiled lace is cleaned by a process imported from Brussels, and which consists in giving to the flowers a fictitious and temporary whiteness by repeatedly dusting them with white lead. All the workwomen employed in fixing flowers so cleaned upon net suffer more or less from the emanations of the lead; and several have been obliged to abandon the business.

CASE OF RUPTURED UTERUS,

IN WHICH THE FREE MARGIN OF THE RIGHT LOBE OF THE LIVER, WITH A MASS OF SMALL INTESTINE AND PERITONEUM, WAS WITHIN ITS CAVITY.

By DILLON KELLY, M.R.C.S.L.,

Medical Officer, Milltownpass Dispensary.

Anne Curran, æt. 30, a well-formed, stout-looking woman, was thirty-six hours in labour of her second child, her first labour having been also very tedious and painful—fully seventy-two hours—and the fœtus still-born.

About six hours after the setting in of labour, the membranes gave way, and their rupture was followed by an immense gush of dirty-looking liquor amnii; the pains then became more frequent and powerful, and the head gradually descended.

There being some little delay in the further advance of the head, and the pains continuing powerful, though not expulsive, the patient was advised by her attendants to make some efforts to assist herself; and, straining with the next pain, for that purpose, she suddenly felt a most excruciating pang dart through the uterus into her back, which caused her to scream out with agony, immediately after which she became faint, the head receded, her expulsive pains ceased, and were succeeded by most distressing continuous griping and cutting ones, with excessive vomiting of yellow mucous matter, and hiccough.

When seen by me, at eleven, A.M., her collapsed, haggard appearance at once conveyed the idea that a mortal shock had been received by the constitution. She was almost pulseless, and had just ejected from her stomach nearly half a wash-basin-full of ropy gastric mucus, dyed saffron with yellow bile. Abdomen large, round, and soft (evidently the result of effusion), and so excessively tender, more especially above the pubic region, that even the slightest pressure of the stethoscope could scarcely be borne. Lower extremities cold, almost devoid of feeling or motion; so that, together with the agony she felt on the slightest change of posture, she was totally incapable of making even the smallest effort at altering her position. A bruit, which I first mistook for the placental souffle, was distinctly audible over the whole of the abdominal tumor, but which a little more accurate observation resolved into a continuous muffled murmur, like the distant hum of the *bruit de diable*, totally different in its character from the placental, and somewhat similar, but more musical than the splenic.

Searching for Dr. McClintock's new symptom, I could not detect even the remotest shade of emphysema in the pubic region, which, however, was far and away the most sensitive portion of the whole abdomen; and I should have said that I could not discover even the slightest feeling of hardness, or

tumor of any sort, to indicate that a gravid uterus of nine months was beneath; and were it not for the history of the case, and that, in addition, two-thirds of the foetal head was in the pelvis, peritonitis with effusion would have been my diagnosis.

Under these painful circumstances, it was but too evident that I had to do with a case of ruptured uterus; and that delivery, and at once, should be resorted to, although it afforded not the most remote chance of relief to my unfortunate patient.

Placing her on her left side, I first introduced a gum-elastic catheter, which I did with the greatest ease; and having, as I supposed, entered the bladder, I was astonished that no urine came away. Introducing my finger to ascertain the cause, I found a rent in the urethra, about two inches from its orifice, through which the catheter passed up the vagina, and then was informed, for the first time, that my unfortunate patient also laboured under urethro-vaginal fistula since her last confinement, for which she had been under hospital treatment in Dublin.

Finding the pelvis roomy, but very oblique, I had no difficulty in adjusting Churchill's forceps, each blade of which I introduced posteriorly, and gradually got into position over each ear, so that they locked with the greatest ease. I then made traction directly downwards, and was gratified to find, from the sudden development of the anus and perineum, that I was not likely to suffer much difficulty in the operation. Next changing its direction to the axis of the outlet, by gradually sweeping round the handles of the instrument, so that they finally became parallel to the flexed thighs, and nearly at right angles with the trunk, after a few efforts I succeeded in delivering the head. But then came the difficulty, and for fully five minutes neither could I, nor a powerful young woman who assisted me, make the slightest progress in the further delivery of the body.

Passing the centre of a fine apron under the chin, and pinning it tightly over the vertex to prevent its slipping, I gave the free ends to my assistant, and again got my fingers locked beneath the lower jaw, and by our joint efforts, succeeded in getting a view of the tip of the left shoulder and neck, when the cause of the difficulty at once became apparent, in the coiling of the funis so repeatedly round the latter, that delivery must have been impossible, so long as the placenta remained adherent and the funis unbroken.

Dividing and uncoiling it (so many as four coils tightly embracing the neck), delivery was quite easily effected, and followed by an immense flow of dark-coloured bloody fluid, completely deluging the floor, evidently the effusion which so effectually cushioned the foetus, and prevented it from being distinguished through the abdominal parietes in the commencement.

Having made traction on the cord, and finding the placenta immovable, I introduced my hand for

its removal, when I found the uterus its full size, not the slightest attempt at contraction having taken place, and so immense a rent in its fundus that the greater portion of its cavity was completely filled up with a mass of small intestines and peritoneum; and, in addition, the free margin of the right lobe of the liver sharp and clearly defined, lying just within the borders of the rupture.

Cautiously feeling round the placenta, which was partially adherent, and leisurely disentangling it from the meshwork of intestines and omentum with which it was enveloped, I succeeded, after some little difficulty, in its removal.

The feel of the intestines was most peculiar, being hard, tortuous, massed together, and apparently contracted in their calibre—most likely from spasm of their muscular coat—and partially enveloped in omentum, so that I almost mistook them at first for the large placental vessels and its membranes.

Having so far succeeded beyond my hopes, I then gave half a grain of acetate of morphia, and left a mixture—a grain to four ounces—a tablespoonful to be given every hour; had warm bricks applied to her feet; and as her collapse still continued, found it necessary to direct a tablespoonful of strong punch to be given, in addition, every half-hour.

For the first hour after delivery she remained perfectly free from pain, and most hopeful; but from that period to her dissolution, which took place at eight o'clock, she was constantly complaining of the excessive pain and soreness of her bowels, constantly changing her position; her whole body gradually becoming deathly cold, but her intellect remaining unimpaired till the last moment of her existence.

This case is chiefly interesting for the enormous size of the rent in the uterus, and for the free margin of the liver obtaining entrance into its cavity through that opening.

It is also interesting in another point of view, as the probable contact of the liver with the foetal extremities may go a great length in accounting for the immensity and constancy of the purely bilious vomiting up to the period of delivery, which ceased directly that process was effected, and did not again return.

In a purely practical point of view, however, it is perfectly valueless, as, under such melancholy circumstances, nothing can be done likely to afford the slightest chance of recovery, although there are some cases on record of such a fortunate termination; and I merely had recourse to instruments, not with the remotest hope of being of any service whatever, but because there is such a strongly-rooted prejudice amongst the lower classes in favour of not permitting a parturient female to die undelivered, a point of the greatest possible importance in dispensary practice.

Proceedings of Societies.

ASSOCIATION OF THE FELLOWS AND LICENTIATES OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS, DUBLIN.

January 6th, 1858.

Dr. MONTGOMERY in the Chair.

Dr. HUGHES detailed a case of

Angina Pectoris,

which occurred in a gentleman aged 38 years, a stout, healthy man, but greatly addicted to smoking. Symptoms were, pain under the sternum, particularly distressing when riding or walking quickly; leaning forward and pressure relieved it. On examination, Dr. Hughes found feeble impulse of the heart, with weak pulse. This gentleman left for the country, and after the lapse of a short time Dr. Hughes was summoned to see him, but the attack proved fatal before his arrival. The *post-mortem* appearances were as follows. Cranial cavity free from disease; lungs healthy, heart very large and fatty, the organ soft and flabby, left ventricle filled with fluid blood, the valves were healthy. The aorta was abnormally small, its canal so narrow, as scarce to admit the point of the forefinger; the lining membrane of the vessel bright red, no atheromatous deposit, coronary arteries healthy; liver large and fatty, kidney's healthy, as were the other abdominal viscera; omentum loaded with fat. Dr. Hughes considered the aortitis in this case capable of inducing the fatal spasm of the heart. The early age at which this disease proved fatal is somewhat anomalous. Dr. Hughes quoted the opinions of some of the highest authorities, who have assigned cases of angina pectoris to aortitis.

Dr. CHURCHILL having made some remarks on

Ramollissement of the central portion of the Brain,

and the symptoms usually attendant on the disease, especially of the complaint of headache, from a child old enough to express his sensations correctly, read the following case in corroboration of his views.

On the evening of September the 17th, 1857, Dr. Churchill saw a child, aged nine years, who had suffered from abscess in the ear during the previous months of May and June, from which he apparently recovered. Early in September the child complained of headache; purgatives were exhibited, and afterwards Hyd. c. creta, till the gums were affected. A blister was applied to the nape of the neck, and the child removed to country air. On the 17th Sept. the patient had an imperfect convulsion, from which he speedily recovered. When Dr. C. first saw him, he had regained his consciousness; he complained of agonizing pain in the head and intolerance of light; pulse 90; no vomiting; no deficiency of voluntary motion or sensation; urine was passed naturally; bowels free. No

change in the symptoms till the 20th, when the intolerance of light and headache declined, and the pulse rose to 120; no thirst or fever. In this state he remained till September the 23rd, when he died, calmly, intelligent nearly to the last. *Post-mortem* examination twenty-four hours after death. Great venous congestion of the membranes of the brain, but no subarachnoid effusion; two or three ounces of fluid in the ventricles; no marks of inflammation on the lining membrane. The white matter of the whole of the left hemisphere of the brain was natural in colour, and softer than usual, but where it formed the sides and vault of the ventricle it was nearly semi-fluid. The corpus striatum and optic thalamus were healthy, as was the right hemisphere. Dr. Churchill said the only symptoms of cerebral disease in this case were, headache, intolerance of light, and pulse quicker than natural. The two former disappeared two days before death.

Dr. Churchill next brought before the meeting a case of a lady aged 28 years, married; but without children, who consulted him for an uterine disorder, and in whom a ring of a light cobalt blue colour formed round the eyes, covering both upper and lower lids, and extending across the nose down to the malar bone of each cheek; as the uterine affection abated, the colour gradually faded, and in two months was scarcely perceptible.

Dr. Churchill, also read a case shewing the value of chloroform in arresting convulsions. The case was that of a lady in labour with her first child. When the head was passing the os uteri, she was seized with a convulsion. Dr. Churchill gave chloroform, which arrested the convulsion, and induced sleep; in five minutes she was safely delivered. Two subsequent fits were arrested by chloroform.

Masked Symptoms of Tapeworm.

Dr. MOORE read the details of a case shewing the masked symptoms of the presence of tapeworm. The patient, a girl aged 12 years, complained of violent headache, vomiting, deafness of the right ear, stiffness of the cervical muscles of right side, inability to use the right arm, and general inertia. Pupils dilated, bowels confined, pulse 80; all these formidable symptoms were gradually dissipated after the expulsion of a tapeworm.

Dr. Moore, whilst he admitted the valuable anthelmintic properties of Kousso, not only in tapeworm, but also in the expulsion of ascarides and lumbrici, at the same time urged the cumbruous character of the dose, as a serious objection to its exhibition. In the Kameela (a specimen of which he laid before the meeting,) this objection is overcome. He stated that it was more than a year since he first heard of the valuable anthelmintic properties of the Kameela, and failing to obtain it, either in London or Dublin, procured it direct from India. From the detailed experience of those who have given it an extensive trial, it deservedly

stands second to no vermifuge in our pharmacopœias, besides having the advantage of being easily exhibited. Dr. Moore spoke of its local nature in cases of herpes, and referred to cases published by him in the DUBLIN HOSPITAL GAZETTE, Nov. 1857.

Dr. Moore also brought before the association a specimen of the *Ferri Protosulphas cum Saccharo*, prepared by Messrs. Oldham and Co., of Dublin, after the formula of M. E. Latour, Pharmacien aide-major, who states that the sugar in combination prevents the tendency of the salt to assume the form of the sesqui-oxide. Dr. Moore has availed himself lately of frequent opportunities of prescribing this proto-salt, and considers its increased palatability an important desideratum in treatment of young persons and children. In the cases of fastidious females, Dr. Hardy speaks very favourably of its exhibition.

Dr. SMITH shewed a very pure specimen of the *Ferri sulphas granulatum*, Dublin Pharmacopœia.

PATHOLOGICAL SOCIETY OF DUBLIN.

December 12.

Mr. TUFNELL laid before the society the drawings and preparations of a case of

Adipose Hernia of the Abdomen,

which had a short time previously come under his care in the City of Dublin Hospital, and which, from its practical importance, was of much interest. The history of the case was as follows:—The patient, a woman aged 60, was admitted into the hospital with symptoms of strangulated ventral hernia, constipation, pain in the abdomen, distressed and anxious countenance, thirst, irritable stomach, hiccough, and small pulse; and coupled with these a small, tense, irregular tumor, situated in the median line of the abdomen, between the umbilicus and ensiform cartilage, an inch and a-half above the navel. The tumor was very tense at its neck, and totally irreducible. The belly itself was distended and exceedingly painful, and the pain described as commencing at and radiating from the tumor. The history which the patient gave of herself was, that the projection had existed for a very long time, and had never returned into the abdomen. She had occasionally suffered from attacks of constipation and colicky pain in the abdomen, but never to the extent of this one, the preceding having yielded to aperient medicines, fomentations, &c. &c. In the present instance, the attack had come on four days previous, after lifting a heavy pot from off the fire, she being cook in a gentleman's family. Castor oil and laudanum, the remedies usually resorted to before, had been employed and repeated, but without effect, and turpentine enemata had failed to relieve the bowels. She was accordingly sent to hospital. The symptoms, when seen by Mr. Tufnell, were those calling for immediate relief. The tumor was

totally irreducible, and tensely constricted, and under these circumstances, division of the stricture was decided on. Upon dividing the coverings, and exposing the neck of the tumor, it was found to be so tightly grasped as to admit a director with difficulty, and intimately adherent all round to the sharp tendinous edge of the aperture in the *linea alba*. The stricture was divided sufficiently to relieve all constriction, and in consequence of its adhesions the tumor left in position. The patient declared herself relieved, and the disposition to vomit ceased. She was placed under the influence of opium and mercury, given internally and by inunction. The following day she was better, and took beef tea freely, and without vomiting; towards evening, however, she grew weak, became worse during the night, and died quietly off next day.

The body was examined twelve hours after decease. Upon opening the cavity of the abdomen, a quantity of purulent matter escaped, and the parietes and viscera were found coated with lymph, and the latter glued together by very old as well as recent adhesions, whilst the castor oil taken the day previous to admission into hospital, was found floating in the left iliac fossa. The liver was very much enlarged, and of a deep flesh colour, and on lifting its left lobe, (from beneath which a quantity of grumous fluid was escaping,) the perforated circular opening of a chronic ulcer appeared on the anterior surface of the stomach, towards the lesser curvature and cardiac extremity, of the dimensions of a sixpence, and surrounded by much thickening and old adhesions; through this opening the oil and other matters had escaped. The tumor was next minutely examined, and it was found to consist, not of omentum passing out of the abdomen, but of peculiar fat, precisely similar to it in characters, which had been generated in the walls of the abdomen, to fill a congenital opening which existed in the *linea alba*, and firmly adherent to it at its marginal edge. The symptoms then under which this patient suffered, were not depending upon the constitution of the adipose tumor or hernia, as it has been designated by Denou villiers, but upon the ulceration and perforation of the stomach: and the improvement which followed the operation was in no way due to the division of the tendinous strictures around the neck of the tumor, but upon the large quantity of opium given to meet the peritoneal inflammation which was present at the time of the patient's admission.

Two points of interest present themselves in this case, in addition to that generally attached to so unusual a combination of disease. The first of these is the great amount of benefit apparently derived from the operation, the cessation of vomiting, the increase of pulse, &c. &c. This must have been produced by the large quantity of opium administered, six grains every hour, in addition to an anodyne draught taken at first. In the next

place, the period of perforation of the stomach and subsequent living, is worthy of remark. The ulcerations must have occurred prior to admission into hospital, for the oil found in her abdomen was taken then, and in the vomiting after admission, none whatever was discharged, consequently it had passed out of the stomach into the cavity of the abdomen fully 72 hours before death.

Case of Retroversion of the Uterus producing Miscarriage.

Dr. MACSWINEY, after some general observations on retroversion of the uterus, detailed the particular case of a patient, æt. 30, who had been seven years married, and during that time had two live children and two miscarriages. The first pregnancy was followed by a miscarriage, the second by a natural labour, the third by a miscarriage, and the fourth by the birth of a living child. The fifth pregnancy went on very well for three months and a half, at the end of which time she suddenly complained of perfect inability to empty her bladder. She had not passed any urine for several hours, and was suffering severe pain; and upon making some inquiries, preparatory to an examination, it was clear that the symptoms were due to retroversion of the uterus. On introducing a finger into the vagina, it was found that the os uteri was placed higher up and more forwards than natural, being immediately behind the symphysis pubis; and on examining by the rectum, the fundus uteri pressed backwards, so as completely to occlude the intestine. The bladder was first emptied by the introduction of a catheter, and then the patient was directed to lie as much as possible on her face, in the hope that the fundus of the uterus might fall forwards into its normal position, and thus "right" itself without further interference. However, next morning the complete retention of urine returned, and required relief by means of the catheter; and then, the patient being placed on her elbows and knees, with her hips well raised, firm and steady pressure was made by means of two fingers of the right hand introduced into the vagina, and two of the left into the rectum; at the same time the cervix and os uteri were drawn gently downwards; and thus the parts were completely restored to their normal position. The patient was informed that she would, in all probability, miscarry; however, in a month after she was going on perfectly well, and quickening took place, and she herself believed that she would go on to her full period. In the middle of the fifth month, however, as she was one day walking across the room, she was seized with a sudden and severe pain in the region of the left ovary, shortly afterwards followed by a slight hæmorrhage; and this was succeeded by several others, at intervals of two or three days. The discharge continued for six weeks, when it became of a greenish colour, and more watery; but during all this time she said that she

felt distinctly the motions of the child in utero; but at the end of the six weeks a very serious discharge occurred, and the os uteri was then found to be rather patulous and soft. Finally, at the end of two months from the first occurrence of retroversion, labour came on; and although the patient was convinced that she *had felt the motions of the child a few minutes before*, the cold and flaccid limbs of a dead fœtus were found protruding from the os uteri.

Dr. Mac Swiney said he brought this case before the notice of the Society to show the result which most usually takes place in these cases. He considered the case of interest—firstly, as showing that quickening took place, and the child continued to live, and the parent to advance in a healthy manner for *six weeks* after the accident took place, and yet ultimately *did* miscarry. Secondly, the case shows what little reliance can be placed in the sensations of the mother as to the movements, and consequently as to the life, of the fœtus in utero. In this instance they were quite fallacious, as the fœtus was at least a fortnight dead. Thirdly, the necessity of manual reduction in some cases, and the mode of accomplishing it, is here exemplified; and fourthly, the great danger of not using the catheter in like cases is rendered apparent.

Bibliography.

On the Treatment of Contracted and Stiff Joints. By ROBERT L. MACDONNELL, M.D. Montreal, 1857.

In this treatise Dr. MacDonnell deserves credit for his attempt to show "what can be done in the wards of an hospital, and in private practice, in restoring to their functional limbs considered useless, by means within the reach of the general surgeon."

Dr. MacDonnell deserves the highest censure for his insinuation that the surgeons of London, Edinburgh, and Dublin are in the habit of removing diseased joints in cases where ankylosis would be desirable and possible. This statement would be erroneous, coming from any American author; but in one educated in this country, and who has repeatedly witnessed and *been taught* the practice which it now serves his purpose to be oblivious of, we fear the *mistake* is wilful.

This is not the first occasion upon which Dr. MacDonnell has assumed to himself, and published as his own, precepts and practice which, to our knowledge, he had *been taught* elsewhere. But we consider Dr. MacDonnell's paper worthy of further censure, because he asserts that "the cases published by him are such as have been hitherto considered irremediable, or were left to nature."

The headings of these cases are as follows, and from the headings our readers may form a just estimate of the cases themselves:—Case I.—Contraction of Knee-joint—Rapid extension—Treatment successful. II.—Contraction of Knee-joint—Partial dislocation backwards of Tibia—Rapid extension. III.—Ankylosis of Knee-joint, with partial dislocation of Tibia backwards—Gradual extension, and division of Tendons. IV.—Ankylosis of Knee-joint from Necrosis of Tibia—Extension. V.—Ankylosis of Right Knee—Extension—Great improvement. VI.—Ankylosis of Right Knee-joint in the straight position—Forcible flexion—Cure.

VII.—Anchylous of the Right Elbow-joint.—Extension—Great improvement. VIII.—Anchylous of the right Ankle, pes Equinus.—Cure. And—Anchylous of the right Wrist-joint, following the puncture of a ganglion.

Until the publication, then, of this exquisite *brochure* by Dr. MacDonnell, emanating from Montreal, in the year 1857, surgeons have preferred amputation of a diseased joint to its anchylous, and anchylous joints have never been rendered useful! We really did not think that any writer could, by his own confession, be guilty of such gross ignorance!

Dr. MacDonnell's treatment of anchylous joints by rapid and forcible extension is a mere copy of what Louvrier did in France many years ago; and Louvrier was wrong in his mode of treatment, and Dr. MacDonnell, who copied him (*although he did not know it*), is also wrong, notwithstanding his boasted success, and they are not to be followed. Langenbeck showed how Louvrier erred, and has brought almost to perfection the treatment of anchylous joints; and in this he has been followed by Solly and several other writers, who (*unknown to Dr. MacDonnell!*) have since written on the subject.

Only that the pamphlet was sent to us to notice, we should never have imagined that it was intended for circulation among the *medical public*.

Selections from British & Foreign Journals.

THE KUMISS CURE.

By HOFBATH DR. L. SPENGLER.

Kumiss, or fermented mares' milk, is well known as an article of nutriment among many Asiatic tribes—the Tartars, the Kalmucks, &c. &c.; indeed, at times, it affords their only sustenance.

It is prepared either by allowing the milk to coagulate spontaneously, or by agitating leaven with it, the result of which is the formation of a fluid containing carbonic acid and some alcohol, which has a sourish taste, and has the power of allaying thirst and hunger.

Kumiss acts beneficially upon the reproductive system, and if taken in large quantity, or by persons not accustomed to it, is capable of exciting a kind of intoxication which, however, is not followed by the injurious effects of ordinary spirituous liquors; no headache remaining after the enjoyment of a quiet sleep. No chemical analysis of this fluid has as yet been undertaken. The therapeutic effects have been observed by many Russian physicians. The author refers to Drs. Chomenkoff and De Maydell as competent vouchers, for not only did they observe the effects of this agent upon numerous invalids, but they also experimented upon themselves. The diseased states to which kumiss is said to be adapted are, scrophulosis, tuberculosis of the lung, when not far advanced, chronic catarrh, scorbutus, chlorosis, atrophy, marasmus, mercurial dyscrasia, and the convalescent stages of other exhausting maladies.

The conditions which contraindicate its employment are, hyperæmia, tendency to apoplexy, the pregnant state, especially in plethoric women, disposition to active hæmorrhage, and finally, organic diseases of kidneys and bladder. Frequent exercise on foot and on horseback, and avoidance of spirituous drinks and mental excitement, favour the success of the cure. From 4 to 15 or 20 glasses of the kumiss may be taken as a therapeutic agent.—*Zeitschrift der k. k. Gesellschaft der Aerzte zu Wien*.

IODASTHMA.

Dr. Santhes relates three cases of asthma, which were caused by the prolonged use of tincture of iodine; the paroxysms were of a most distressing character. On

giving up the use of the iodine the asthmatic attacks ceased. The influence of iodine on the branches of the vagus affords an explanation of this phenomenon.—*Deutsche Klinik*.

ON THE EMPLOYMENT OF TARTARIZED ANTIMONY IN THE TREATMENT OF CHOREA.

By DR. ADRIEN MARCOTTI.

The author of this paper gives an historical account of the various authorities who have recommended tartar emetic in chorea, for which it was first employed by Laennec, under the influence of Rasori, who was then administering this drug in large doses. The results of two cases, under the treatment of M. Bouley, in the present year, at the Hospital Neckar, were quite favourable. In the first case, that of a young girl, the chorea had lasted a month, and was increasing in intensity. Large doses of the tartar emetic were given on two successive days, and thirty hours after the first administration of the medicine all choretic movement disappeared. The patient was at first thrown into a considerable state of depression, but some moments of sleep sufficed to restore her, and the appetite was soon found to reappear. The muscular disorder disappeared, but a bad state of the constitution remained, and recourse was made to tonic medicines to improve her condition. The chorea reappeared under the influence of a fit of passion, but on the administration of the tartar emetic it again subsided. In the second case, the chorea was at first general, and almost immediately became partial. It resisted, for six months and a half, sulphurous baths, chalybeate tonics, and strychnine, and yielded in twenty-eight hours to the employment of tartar emetic.—*Bulletin Général de Thérap.*, July, 1857, and *British and Foreign Med.-Chir. Review*.

ON THE THERAPEUTICAL ACTION OF CHLORATE OF POTASH, WITH A NEW MODE OF ADMINISTERING IT.

By DR. DETHAN.

Dr. Dethan considers that chlorate of potash is a powerful sialagogue, and that its elective action on the bucco-pharyngeal mucous membrane is well marked. To this physiological action is added a very remarkable and valuable success in pathology; its rapid and incontestible effects in mercurial salivation, by checking the formidable mercurial affection, have permitted practitioners to continue the mercury without fear, and thus to contend without remission against the constitutional infection. As an especial and incontestable remedy in ulcero-membranous stomatitis, this medicine need not, according to the physicians of the Hôpital Sainte-Eugène, be swallowed; its topical application is sufficient, and in a short time the mucous membrane recovers its normal qualities and functions. Dr. Dethan concludes that the chlorate of potash, administered under a special form, which would permit the local action to be exercised slowly and certainly, although leaving the medicine to be carried into the stomach in a state of solution with the mixed liquids of the salivary, buccal, and pharyngeal glands, would be the mode of administration which would combine all indications and all opinions. He therefore suggests the use of the remedy in the form of pastiles, so that the patient may have at hand a remedy against the injurious effects of a mercurial treatment which he may be undergoing. The experiments of Dr. Ricord, and the publications of M. A. Fournier, testify incontestably in favour of this successful simultaneous medication. In certain forms of angina attended with fibrinous exudations, it prevents the intimate adherence of the false membranes to the mucous membrane, and facilitates their expulsion, and assists the action of emetics. In this affection the topical action of the chlorate, favoured by the bruising be-

tween the teeth, the natural solution in the liquids of the mouth, and its penetration into all the points interested, will be certainly efficacious. In debilitating diseases, such as diphtheritis and gangrene of the mouth, the child will find an agreeable and reparative kind of food, together with the most appropriate remedy hitherto discovered against these diseases.—*L'Union Médicale*, June, 1857, and *British and Foreign Med.-Chir. Review*.

ON THE VALUE AND ON THE INDICATIONS OF PERCHLORIDE OF IRON ADMINISTERED INTERNALLY IN THE TREATMENT OF ERYSIPELAS.

The use of perchloride of iron in the treatment of erysipelas has lately been brought again into notice by the publication of a thesis by M. Louis Mathey, and by some observations made by M. Aran, physician of the Hôpital St. Antoine, in Paris. M. Mathey relates ten cases of erysipelas treated with this medicine, and his conclusions are contained in the following remarks:—

The action of perchloride of iron on erysipelas is evident, and the course of the disease is modified a short time after its administration. In fact, on the second day, and sometimes even on the first, M. Mathey has seen the disease become limited and circumscribed, and its further progress arrested. As to the duration of the disease, the effect of the perchloride is still very remarkable: not only is the progress of the erysipelas sensibly modified from the first few hours which follow the administration of the medicine, but it is completely arrested; the radical cure of the disease is obtained in a very short time. It was observed that in ten rather severe cases of erysipelas treated by the internal use of perchloride of iron, three were cured in two days, three were cured in three days, two were cured in four days, one in five days, and one in seven days. It cannot therefore be denied that erysipelas is advantageously modified by the internal use of chloride of iron; that the cessation of the symptoms proper to erysipelas is sometimes very rapid after the administration of this medicine; that in a series of ten observations, made upon varied cases, this treatment never failed; that even where its efficacy may be doubted it has never given rise to any bad symptom; and that when administered in the dose of thirty drops to a healthy subject, it has never given rise to any painful sensation, and has never produced any notable functional disturbance.

M. Aran agrees with M. Mathey in never having observed any unfortunate result from the administration of the perchloride of iron in larger doses than those employed by M. Mathey—namely thirty, fifty, sixty, and one hundred drops a day, in certain exceptional cases. But a wider and more extensive experience of the employment of the perchloride has shown him that there are particular circumstances which favour the action of the medicine. M. Aran believes that it would be vain to expect advantageous results from the administration of perchloride of iron in all cases of erysipelas. He is convinced that some cases of erysipelas will not yield to this remedy; as, for instance, the cases which occur in young, strong, and robust subjects of a sanguine temperament, and which are accompanied by a well-marked inflammatory action. On the other hand, the cases of erysipelas which are developed in feeble, delicate subjects, of a well-marked lymphatic or scrofulous temperament; in individuals already weakened by previous diseases; the cases especially which exhibit, with well-marked tendency to spread, the oedematous form; and in which, even with a marked acceleration of the pulse, the arterial throbs are weak and easily depressed, or when fever is completely wanting, as happens sometimes in old persons: these cases are remarkably modified, and often arrested in twenty-four, thirty-six, and forty-eight hours, by the administration of the perchloride. The erysipelas which is still more atonic, and which supervenes in the course of serious diseases

around punctures, abrasions, or lacerations of the skin, at other times even without appreciable causes, are amenable to the perchloride of iron. Lastly, the cases which, even when they show themselves in strong and robust subjects, after having been reduced by various and appropriate treatment, still linger on, and pass from one part to another, throwing out unexpectedly its eruptions in places where the disease appeared to have been long extinguished—such cases are often terminated in twenty-four hours by the perchloride of iron.

Another point connected with this subject is the propriety of administering the perchloride as a prophylactic. "There are certain epochs and years" says M. Mathey, "when cases of erysipelas of traumatic origin are multiplied to infinity, and show themselves in such great number, that the disease is truly epidemic. The application of a seton, a moxa, or a blister, is followed by erysipelatous inflammation; and, *à fortiori*, the great wounds united by sutures and bandages of diachylon are almost infallibly attacked with the disease. The surgeon who operates under these circumstances is pretty sure to see erysipelas among his patients. It would, perhaps, be proper to postpone the operation; but sometimes the case is urgent, and the surgeon would think himself fortunate, and could act with more confidence, if he could hope to put his patient beyond the reach of a troublesome complication: might we not, for the first few days which follow a delicate operation, and during which inflammation is to be feared, unite soothing beverages some drops of perchloride of iron, because it is fully established that its use in moderate doses is not followed by any bad effect?"—*Bulletin Général Thérap.*, July, 1857, and *B. & F. Med. Review*.

SARCINE.

At a late meeting of the Medical Society of London, Dr. Thudicum exhibited a new body not long since discovered, "Sarcine," and explained the different steps of the process of its preparation from human urine. He believed it played a very important part in the metamorphoses of tissues as shewn in the urine in disease. The various precipitants were shewn to the Society; the urine is first made alkaline by mixture with milk of lime; it is then evaporated to one-third, and then a precipitate obtained by means of acetate of copper; after the urine has been macerated so as to get rid of uric acid, the copper is then removed by sulphureted hydrogen, and the remaining urate of lime by oxalic acid. Sarcine combines with nitric acid, forming curious crystals. Dr. Thudicum explained its other properties at some length, as recently described in the works of the Swedish and German chemists, and cited a practical instance of the value of recognising these properties, as in a case of Bright's disease, where he had recently examined the urine, he found it loaded with what appeared to be serum, as well as uric acid, the urea, however, diminished; but at least twenty times the normal amount of this new product or educt, "Sarcine," was discovered.

SURGICAL DIABETES.

Mr. Erichsen stated recently to his class at University College Hospital that, in reading over some of the curious and startling experiments of M. Claude Bernard, where that distinguished physiologist was able to produce artificial diabetes in large dogs and other animals by imitating concussion of the brain, by striking the animals with a hammer! he was led to examine the urine of some of the patients brought to University College Hospital suffering under "concussion," and he was astonished to discover large quantities of sugar in the urine! Whether this arises from the delicate parts about the fourth ventricle giving way, and containing clots of blood, or general derangement or "contusion"

of the brain substance, Mr. Erichsen is not yet in a position to state. In one case of concussion recently under Mr. Erichsen's care, a large quantity of cerebro-spinal fluid was observed trickling away, a very formidable symptom in general, yet the case did very well.—In another case, a man fell a distance of fourteen feet, coming down on the back of his head; he was severely bruised, and was taken up stunned, suffering from concussion. When admitted to hospital, it was noted that the sensibility of his limbs was good, but all power of movement was abolished. His urine was examined about this time by Dr. Harley, and found to contain sugar in abundance, and this ingredient seemed to increase every day till indistinct signs of mobility or power of motion returned to the limbs, when it began gradually to diminish, according as the paralysis of motion subsided. It was curious to observe that sensibility of the limbs was good even at a time that motion was abolished.—*Medical Circular*.

ON CEREBRAL RHEUMATISM.

On the strength of three cases that have occurred in his own and M. Vigla's practice, M. Gubler comes to the following conclusions:—1. Medical tradition and modern observation establish the fact of morbid determinations to the brain in the rheumatic diathesis. 2. Prior lesions of the brain or its membranes, mental over-exertion or suffering, chills, and, perhaps, over-doses of quinine, may act as occasional or adjuvatory causes. 3. On the occurrence of these cerebral complications, the articular affections sometimes abate; but for the explanation of this we need not have recourse to the doctrine of metastasis, it sufficing to admit a revulsion or an alternation between the two great nervous systems of organic life and the life of relation. 4. At first, apparently, the membranes of the brain become inflamed, the cortical substance afterwards being involved. 5. Dependent upon the extent and intensity of this plegmasia, the symptoms may assume the forms of a congestive rheumatic cephalalgia, of a transitory delirium leaving no anatomical traces behind, of a true meningitis or meningo-encephalitis, and, according to Stoll and others, of a rheumatic apoplexy. due to the sudden accumulation of serosity. Although analogy would lead us to admit the existence of the last form, yet the facts adduced as yet in its behalf are insufficient, inasmuch as in some of these the signs of the formation of coagula in the heart have been mistaken for symptoms of apoplexy.—*Archives Générale*.

ON THE EMPLOYMENT OF GUARANA IN OBSTINATE DIARRHŒA.

Dr. Hervé, of Lavour, calls the attention of the profession to the employment of a substance which is in common use in South America, and particularly in Brazil, where the cases of diarrhœa and dysentery present themselves in a very severe form. Those who inhabit that country know that every family has a little provision of guarana, and that as soon as any one is seized with diarrhœa or dysentery, a little of the substance is scraped and infused in a cup of boiling water, which is swallowed at once with or without sugar. Dr. Hervé, following the advice of Dr. Mialhe, has given it in infusion in sugared milk, and it is then much more agreeable, and does not lose its special characters. For the last five or six years he has employed this medicine daily; it has never failed him in the most obstinate cases of idiopathic diarrhœa, and almost always it has ameliorated the condition of the patient even in the most serious symptomatic cases. The guarana or *paulinia* has been also employed in the treatment of headaches; and it has succeeded in some cases connected with gastric derangement, but it has failed in others.

The guarana, as a medicine, was first described by Cadet de Gassicourt, in 1817, from a fragment which had been brought to him from Brazil, by an officer attached to the French embassy. On this specimen a

ticket was fixed, importing that this substance was much employed in Brazil for cases of diarrhœa and dysentery. Towards the close of the year 1822, an inhabitant of the same country, M. Gomés, sent to Méral a complete specimen; it was a mass presenting the form, colour, and volume of a sausage; there was joined to it a very rough bone, intended to act as a rasp, and which is always sold with the medicine. The learned botanist, Martius, afterwards occupied himself in discovering the plant which yielded the guarana, and he classed the climbing shrub which furnishes the guarana seeds among the Sapindaceæ, under the name of *pauhinia sorbilis*, in consequence of its employment as a drink. It may be used in the form of pastilles, syrup, pills, tincture, and pommade, as well as in powder, and in combination with chocolate.—*Bulletin Général de Thérapeutique*, May, 1857, and *B. & F. Med. Review*.

ARSENIC IN PAPERHANGINGS.—Dr. Alfred Swayne Taylor, in his evidence before the Select Committee of the House of Lords, last session, on the Sale of Poisons Bill, after pointing out that arsenic was much used in several manufactures, such as in the manufacture of glass, especially of opal glass, of shot, in the steeping of grain, and in killing the fly in sheep, states that the largest quantity of arsenic used in this country is used in the manufacture of paper for covering walls. He considered it very injurious both to those living in a house prepared with this article, as well as those employed in the manufacture. An instance was published in a medical work of some cases of illness occurring to persons living in a room papered with this paper; and the effects were described as those arising from arsenic. The colour, says Dr. Taylor, is put on very loosely; it contains nearly 50 per cent. of the poison. In addition to the above, Dr. Taylor handed to the committee an envelope, the green tint on the inside of which he examined and found to be formed of arsenite of copper. There is also an orange yellow which contains arsenic.

CORK-STREET FEVER HOSPITAL.—The Board of Governors of this hospital met January 7th, to elect permanent and supernumerary physicians in the room of the late medical officers, who, under the bye-laws, were not considered eligible for re-election. Dr. Thomas Brady and Dr. Hanna were elected permanent physicians; and Dr. H. Kennedy and Dr. Moss were elected temporary physicians, in the room of the two gentlemen promoted to be permanent physicians.

COMMUNICATIONS RECEIVED

From Dr. Hayden; R. Lewis Esq.; Dr. Mansfield (a private letter has been sent); Dr. Moore; The Registrar-General; Dr. Hughes.

Received, all our Exchanges, except *The Psychological Journal*.

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Whitworth, Hardwicke and Richmond Hospitals.

CLINICAL LECTURE

By DR. CORRIGAN,

Physician in Ordinary to the Queen in Ireland, &c. &c.

(Case reported by MR. TYNONE, Clinical Clerk.)

Aneurism of the Abdominal Aorta—Diagnosis by position—Bruit audible in supine position, vanishing in erect posture—Fixity of the Tumor—Aortic Aneurism, origin of, in injury—Mode of magnifying indistinct pulsation—Valsalva's treatment.

The immediate subject of this day's lecture is aneurism of the abdominal aorta. The subject is one well deserving of your attention; it is one of the class of diseases that may be truly called hospital study, as contradistinguished from book study; for the disease, although most serious, and not very uncommon, is not even named in some of the standard works on practice of medicine that are in your hands as class-books. To the students who purpose entering the military or naval service, the disease and its symptoms should be objects of special study, as it has happened that a man suffering from this disease has been supposed to be a malingerer, and has been unjustly punished as such, while he has been suffering from a most painful and probably fatal malady.

To fix your minds at once upon the prominent and diagnostic signs, I shall first direct your attention to the most essential diagnostic marks of the case.

The patient, a man of 38 years of age, in Ward No. 2, Whitworth Hospital, is muscular, remarkably well formed, and apparently strong, without any appearance of organic disease about him, and with a full regular pulse. He complained, however, on admission, on the 8th of December, 1857, of pains across his back, and running round him, and of pain on deep pressure in lower part of epi-

gastric region. There was no fulness of abdomen, nor any indication of hepatic or intestinal derangement, and on a cursory examination the patient might have been supposed to be a malingerer, but on more careful examination in a part which he described as the most painful on pressure, namely about three inches below the ensiform cartilage, and perhaps a little to the right of the mesial line, a pulsatory tumor could be felt. Its size was obscure, and on close examination a sulcus could be felt between it and the ensiform cartilage, proving that the pulsation felt in it was not conveyed from right ventricle of heart through enlarged left lobe of liver, or through any solid continued tumor. Deep seated pressure over the part gave him a choking sensation extending up to the throat. On applying the stethoscope over the tumor, the patient lying on his back in bed, a very distinct, although soft, *bruit de soufflet* was heard, confined to the tumor and synchronous with the action of the heart. In 1833, I published in the *Dublin Journal*, a short paper on a mode of making a diagnosis of aneurism of the abdominal aorta, and the test was applied to this case. You all heard the bruit, soft, distinct, synchronous with the action of the heart, and limited to the tumor as the patient lay on his back, his shoulders low. He was then asked to leave the bed and stand erect. After standing for a few moments in this posture, you again examined him with the stethoscope, and the bruit had quite vanished. Repeatedly the same experiment has been tried, and always with the same result. The diagnostic sign of aneurism of abdominal aorta from position that I would lay down then is this: *circumscribed bruit in pulsatory tumor, audible in supine posture and vanishing in erect posture.* Nor is the explanation, I think, difficult. When the patient is lying on his back, and especially if the shoulders be a little depressed and the hips slightly elevated by a pillow placed under them, the aneurismal tumor is permitted to throw back into the aorta a small portion of its fluid contents, and it is aided in doing so by the pressure of the superjacent viscera and action of the abdominal muscles

and diaphragm. The aneurism, in each interval of the heart's contractions, becoming thus slightly flaccid, the blood is sent into it with a gush on each succeeding action of the heart, and the gushing current throwing the sides of the aneurismal sac into corresponding vibrations, a bruit is thus produced, circumscribed to the tumor and synchronous with the pulsations of the heart. But when the patient stands in the erect posture, the circumstances are altered. In the erect posture there is the column of blood extending from the carotids through the whole descending aorta, exercising a constant and unvarying pressure on the blood of the aneurismal sac. The sac is thus kept constantly distended; it cannot become flaccid; it is equally tense with all other portions of the arterial tube. Its sides are not free to vibrate or to be thrown into tremulous motion, and hence the bruit ceases in the erect posture. I may observe that an interval of a few moments is generally required when the patient stands erect for the bruit to vanish. This is merely the time required for the action of the hydrostatic pressure to come into full effect. I do not mean that this rule will hold good with regard to aneurism of all sizes and of all kinds of parietes. In aneurisms of very large size and with very elastic parietes, there will be a bruit in all postures, but even in such the bruit will be very much loudest in the horizontal posture.

I will now ask you to keep in mind another diagnostic sign, to which I drew your attention in the ward, viz., the fixity of the tumor. When you place your fingers on the pulsating tumor with gentle but deep pressure, and while holding them so, ask the man to draw a deep breath, the action of a deep inspiration is merely to remove or raise the hand as it were from the tumor, rendering the pulsation less distinct; the tumor did not move with the motion of the diaphragm. I then had you to contrast this with a similar examination of another case of abdominal tumor, in the same ward. In this latter, the case of a man of middle age, jaundiced, there is also a small tumor pulsating in nearly the same situation, viz., about three inches below the ensiform cartilage, but it is movable on inspiration, for on making a tolerably firm pressure on it with the fingers, and asking the man to inspire, the tumor is distinctly felt slipping down and away from under the fingers with each act of inspiration. Neither does the tumor in this latter case give audible bruit in any posture. We are thus enabled to add fixity to the signs on which the diagnosis of abdominal aneurism will then rest. There are, of course, some abdominal tumors that present equal fixity, such as tumors in the pancreas; but then they will not present the other characteristic signs; and it is, I am sure, not necessary to remind you that there is probably no one symptom or sign of any disease that is absolute and of unvarying value, but that in nearly all cases you must not only discover the sign, but you must then esti-

mate its distinctive value in each individual instance as it presents itself.

In bringing before you the prominent diagnostic signs of this case of abdominal aneurism, I have purposely passed by the merely collateral symptoms—that is, the pains of back, neuralgic pains, and pain on pressure over the tumor, &c.—because there is not one of these diagnostic of the disease. To make the case, however, perfect, I shall now add its history, from the notes taken by Mr. Tymons, Clinical Clerk.

J. B., aged 38, a man of strong healthy appearance, admitted into Whitworth Hospital, 8th December, 1857. He had been a cavalry soldier for 18 years. In 1846 his horse reared and fell back on him, with such force as to break the saddle-tree on his chest, rendering him insensible. However, no bad symptoms followed this accident. In 1853 he had a rheumatic attack in India, which was accompanied by a dull pain in the loins, and throbbing sensation of weight at the epigastrium, for which he was leeches and blistered. These symptoms disappeared after eight months. He then, however, so fully recovered that he volunteered for the Crimea in the Russian war, where he again had rheumatism, from which he suffered for about five months. On the reduction of the army he was discharged, invalided. Towards the end of last October, he again felt the uneasy throbbing sensation at the pit of the stomach which has been gradually increasing up to the date of admission. He now complains of pain shooting from the region of his stomach towards his loins and thighs."

The local symptoms and signs I have already noticed and commented on.

The treatment was leeching, the exhibition in small doses of calomel and opium and anodynes, the object of the treatment being to allay the inflammatory action that had been set up around the tumor, and which, extending to the neighbourhood of the roots of the spinal nerves, was the cause of his suffering as he did on admission. He is now quite free from pain, and may remain so probably as long as he refrains from exertion.

Aneurism of the abdominal aorta, if circumscribed as in this case, and not connected with an extensively diseased vessel, is often a very slow and painless disease, and has a greater tendency than most aneurisms to cure. I have seen a few cases where the aneurism was not larger than a small apple, and more than half filled with firm and successive layers of fibrine, presenting a barrier, not only to rupture, but to further distension.

It is not improbable that the injury he sustained by his horse falling back on him may have led to the production of aneurism in this case.

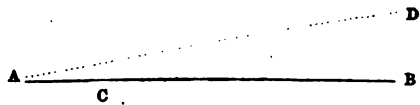
I remember two cases in which aneurism was, I think, distinctly traceable to injury: in the one from a crush, in the second from sudden and unaccustomed muscular exertion. In the first of these instances, a gentleman was thrown out of a rail-

way carriage, in a collision on the line. He was doubled up, as he described it, and felt crushed across the chest. Some few months afterwards he suddenly felt, almost without any previous warning, that he was caught in his breath, when attempting to mount his horse, and after a few similar warnings I saw him. He then had a very large aneurism of the ascending aorta, involving the orifice of the vessel, and therefore superadding permanent patency. In the second case, when the harvest ploughing was in progress, the owner of the field, angered by what he considered bad workmanship on the part of his ploughman, dismissed him; and although previously utterly unaccustomed to any labour, persisted in taking up his ploughman's occupation. The result was, great labour and muscular exertion, and breathlessness. I saw him the succeeding Christmas, after a lapse of about two months from the incident I have narrated, and from which he dated his illness, and suffering, as he thought, merely from neuralgic or rheumatic pains of right side of neck. He had an enormous aneurism of arch of aorta, involving carotid and subclavian arteries.

In laying up in the store-room of your memory aneurism of the aorta, as a class of diseases well deserving of recollection and study, I would advise you to make a division of them into aneurism of the ascending aorta and its arch, of the thoracic aorta, and of the abdominal aorta.

Aneurism of the arch or superior portion of ascending aorta, is often extremely difficult of discovery. It may increase to considerable size without giving rise to any pain; and if it dilate, as it most often does, into right side of chest, it may not for a long time press either upon bronchus or œsophagus. It has no peculiar diagnostic sign of its own. If the mouth of the aorta or aortic valves be not engaged, there will often be no bruit audible. I have seen aneurism of the arch of aorta as large as a small melon, without any bruit. Indeed, as long as the aortic valves remain sound, and the aneurismal sac moderately thick and inelastic, it will be kept as tensely and equally distended with blood as the sound aorta, and there will be no more bruit in the one than in the other. It will not unfrequently happen, that the first sign of aneurism of the ascending aorta will be an indistinct though circumscribed pulsation between the second and third or third and fourth ribs; and in cases where there has been doubt as to its existence, I have sometimes succeeded in making it very evident, even to a number of pupils standing round the bed, by a mode I shall now describe. Take a light, slender rod of wood, about a foot long, or a quill with a shaft about the same length, or in default of both, the shaft of the stethoscope (having removed the earpiece), and lay it over the place of the suspected pulsation, allowing, in all, only about two inches of the rod or quill portion to lie in contact with the thorax, the remainder slanting off unsupported. The instrument should

be thus laid between the cartilages of the ribs, and parallel with them. The end of that portion of the rod in contact with the chest should be about two inches beyond the suspected point of pulsation, and fixed there, as a centre of motion, by the middle finger of the hand, while the index finger very gently presses down the part of the rod lying over the site of the pulsation. If there be a pulsating tumor under the index finger, a pulsation so slight as to be of itself scarcely, if at all, perceptible, will throw up the far or free end of the rod into a magnified movement, that will render very distinct what would otherwise be doubtful. The following rough diagram will, perhaps, assist my description. If A B be the light rod of wood, with the middle finger of left hand pressed with moderate firmness upon the end A, to make it the



centre of motion, while the index finger of same hand is pressed lightly upon the rod at C, over the suspected pulsating tumor, then on each upward motion of the pulsating tumor, the far end of the rod B will be moved through an arc to D, that will be as the length of the whole radius A B is to the short radius A C. Or in figures, if the length of the rod A B be 12 inches, and the length from A to C be 1 inch, and that the pulsating tumor raise the rod at C only 1-24th of an inch, it will cause the end of the rod at B to move at each pulsation through an arc of half an inch; and so on of all other proportions. The pulsation will also be more perceptible on the termination of each act of expiration; for at such moment the parietes approach more closely the aneurism, and the intervening lung is more dense, and therefore better adapted for transmitting the impulse.

I have now only time left to make a short criticism on the descriptions that are usually given of what is known as Valsalva's treatment of aneurism. It is generally described as consisting merely of frequent bleedings and low diet; but the most important and really efficacious part of his treatment is often not noticed, or passed over—viz., confining the patient to very small quantities of fluid. Frequent bleedings and low diet would rather tend to prevent than to promote coagulation in an aneurismal sac, if this important part of Valsalva's precepts be neglected.

P.S.—While these pages are in print, the case of jaundice with movable tumor, referred to in the above lecture, has died. A scirrhus tumor, as large as a walnut, enveloped the pylorus, and a structure of similar kind was found enveloping the ductus cysticus and ductus communis, but not altogether obstructing the passage from the gall-

bladder, for pressure forced bile through the duct. This explained one of the symptoms during life, of jaundice persisting with bile in the stools, the obstruction being sufficient to impede the continuous free flow of bile through the duct, but not obstructing it altogether.

Jervis-street Hospital.

A CASE OF FATAL PERITONITIS,

CONSEQUENT ON PERFORATION OF THE VERMIFORM
APPENDIX, FROM THE PRESENCE OF FOREIGN
BODIES IN THAT TUBE; WITH OBSERVATIONS.

By JAMES STANNUS HUGHES, M.D., F.R.C.S.I.,
&c., &c.,

Surgeon to Jervis-street Hospital.

(Reported by Mr. HILLERY, Resident Pupil to the
Hospital.)

Edward Murphy, æt. 50, butler to one of our leading physicians in this city, was admitted by Dr. J. S. Hughes, at his master's request, for obstruction of the bowels, into Jervis-street Hospital, on Saturday, the 14th of November, 1857.

The patient stated that on Thursday, November the 12th, he had had a scanty motion from the bowels, after which obstinate constipation ensued, for which he had taken several doses of castor-oil of his own accord, and eight purgative pills under medical direction, without relief; the abdomen then gradually became swollen and tender to the touch. He had vomited several times between Thursday and Saturday, the day of his admission into hospital. On reception into hospital, the patient complained of severe pain in his abdomen, which was painful to the touch, *but the pain was not referable to any particular part of the abdominal cavity*; the abdomen was uniformly swollen, elastic, and slightly tympanitic; the pulse was rapid, and compressible; the countenance expressive of suffering, the tongue was loaded with a yellow fur, but moist. *The patient lay in bed in the fully extended position, with his thighs and legs stretched out*, a position which he maintained throughout the entire of his illness; his thirst was excessive, and he had occasional hiccough.

On the day after admission into hospital (Sunday) the patient appeared better, owing to the curative measures which had been adopted with him, and he expressed himself as being much relieved, chiefly in consequence of his bowels having been three times evacuated, each of the motions being large in quantity, and of a dark fœtid character; much wind was liberated with each evacuation. The apparent amendment was, however, of a temporary nature only, for in the course of the following day (Monday), the patient was suddenly seized with symptoms of a perforation of one of the hollow viscera, viz., regurgitant vomiting, con-

stant hiccough, increased tympanitis, aggravation of abdominal pain, which now became agonizing; the respiration soon became hurried and thoracic, the countenance more sunken, the pulse intermitted; the extremities assumed an icy coldness, under which symptoms the patient gradually sank on Wednesday morning at one o'clock, the seventh day after the first seizure of his illness, and the fourth after his admission into hospital. It should have been mentioned that the fluid thrown up by the patient on Monday was copious in quantity, and consisted of a dark greenish, ropy secretion, which gave out a disagreeable, acid, but not feculent odour.

It is due to the memory of Edward Murphy to state, that on ascertaining that his case was out of the ordinary course, and therefore one of deep interest to the medical profession, he expressed a dying wish, within hearing of some of the members of the staff of the hospital, "*that a post-mortem examination should be held on his remains for the benefit of science.*"

On making an examination of the body after death, by means of a crucial incision through the walls of the abdomen, some fœtid gas escaped from the cavity of the peritoneum, and the following appearances presented themselves.

The first object that attracted attention was the *omentum laden with fat and completely spread out over the intestines*. On raising up the omentum, the abdominal viscera were found in a highly inflamed condition, and agglutinated together by recently organized lymph; both the parietal and visceral layers of the peritoneum were in a state of inflammation, the intensity of which had, however, its seat in the right iliac region, at which point the surfaces of the peritoneum were closely adherent, and a well marked gangrenous patch existed on the parietal layer, corresponding to the situation of the cœcum. The intestines on being freed from their adhesions, were found of a dark mahogany colour in the ilio-cœcal region, and on lifting up the cœcum, which was accomplished with some difficulty, in consequence of its being bound down by a strong band of organized lymph, some of the fluid contents of the bowels were found in the right iliac fossa, together with a concretion of a dark brown cinnamon colour, of about the size of a large hazel nut. On looking for the perforation in the alimentary canal, it was found to exist in the body of the vermiform appendix, the opening was rounded off at its edges, and sufficiently large to admit of the introduction of the top of the index finger. On compressing the vermiform process between the fingers, it was found to contain another but smaller foreign body, of about the size of a large apple-pippin.*

Dr. John Barker, Curator of the Museum of the Royal College of Surgeons, who made a minute

* Dr. Hughes has in his possession a drawing by Mr. Connolly, of the *post-mortem* appearances in Edward Murphy's case.

dissection of the intestines for Dr. Hughes, reports that he found "the ilium intestine for about one foot above the ilio-cæcal valve, hardened, inflamed, and thinner than usual, with distinct sub-mucous emphysema in many places. In the cæcum, opposite the opening into the vermiform appendix, was a slight blush of redness, but there was no appearance of inflammation round this opening. The mucous membrane of the vermiform process was thickened, softened, and ulcerated through."

Observations.—Perforation of the vermiform appendix is fortunately rather a rare occurrence. Five cases, and five only, have been placed on the records of the Pathological Society of Dublin since its formation, now some twenty years ago. Two of the cases I allude to were brought forward by Sir Henry Marsh, two by Dr. Law, and one by Dr. Lees. It is right to remark that in four out of these five cases the patients complained of intense pain in the ilio-cæcal region. In one of Sir H. Marsh's cases (that of a distinguished statesman who died in this city from perforation of the vermiform appendix) "the patient had complained for fifteen or sixteen hours of pain under the false ribs of the right side and in the right lumbar region; during the last few hours of the patient's life he had complained very much of pain along the right thigh, with retraction of the testis, and painful, and frequent micturition."—*Dublin Medical Journal*, vol. xviii, p. 338. In Sir Henry Marsh's second case, that of a medical student, which has been fully detailed by Drs. Houston and Benson, in the third vol. of *The Dublin Medical Press*, p. 339, the tenderness was not general over the abdomen, "but on pressing it, a fulness and resistance could be perceived on the right side of the umbilicus, extending to the right iliac fossa; here also, pressure occasioned considerable pain, and when other parts of the abdomen were pressed, the pain was referred to this region." In one of Dr. Law's cases, the patient "complained of pain running along the right thigh."—*Dublin Medical Journal*, vol. xviii, p. 336. And in Dr. Lee's case of fatal peritonitis, consequent on ulceration of the vermiform appendix, there was pain in the ilio-cæcal region.—*Dublin Medical Journal*, August, 1848.

In only three of the five cases on the records of the Pathological Society of Dublin, were foreign bodies found in the vermiform appendix. In one of Sir H. Marsh's cases, the concretions consisted of feculent and animal matter; in the second of Sir H. Marsh's case, (that of the medical student), the nucleus of the concretion was formed by a lemon pippin. In one of Dr. Law's cases the vermiform appendix was found to contain a hard compact substance of a cinnamon brown colour, which was moulded exactly to the cavity of the appendix.*

The following is a short outline of the treatment which was adopted in Edward Murphy's case after

* Dr. Aldridge examined the concretions which were formed in Edward Murphy's case, and found them to consist of indurated feculent matter.

his admission in hospital. Viewing the case as an example of entero-peritonitis with obstruction, the patient was placed as rapidly as possible under the influence of mercury. The abdomen was leeches and assiduously fomented. A purgative enema was administered, and small portions of Wenham Lake ice were placed on the tongue from time to time, to assuage thirst. From this mode of treatment the patient seemed, on Sunday, (the day after admission,) to be much relieved. On that day he had, as already stated, three evacuations from the bowels. When, on Monday, the third day after the patient's admission, suspicions that some portion of the intestinal canal had given way, were naturally aroused by the sudden depression of the vital powers, the rapid increase of the tympanitis, the aggravation of the abdominal pain, and the setting in of regurgitant vomiting, together with continual hiccough, I, with the concurrence of Dr. Power, my colleague on duty at the time, placed the patient without delay on the opiate treatment, and had a large blister applied to the abdomen, with directions to have the vesicated surface dressed with mercurial ointment. An endeavour was at the same time made to support the patient's constitution by giving him spoonful of red wine and beef tea alternately, at short intervals.

I may, in conclusion, remark, that the chief points of interest in connexion with Edward Murphy's case appear to me to be—firstly, the absence of local pain or fulness, to point out the seat of disease; not that any practical advantage could have accrued had we even been possessed of any mode of ascertaining the *exact* seat of the inflammation, as the treatment would have been precisely the same, whether we look to the measures carried out to subdue the entero-peritonitis, or those prescribed after the well-known symptoms of perforation of one of the hollow viscera had supervened; and, secondly, the fact of the patient having, during his entire illness, lain in the fully extended position, with his thighs and legs stretched out, notwithstanding the amount of peritoneal inflammation under which he had been labouring, as proved by dissection. Whether this extended position could be accounted for by the complete separation, as by a soft cushion, of the inflamed parietal and visceral layers of the peritoneum, by the spread out omentum loaded with fat, I throw out for the consideration of the profession.

The dying request of Edward Murphy, that his remains should be examined for the benefit of science, proved a strength of mind and freedom from prejudice rarely to be met with in any class of society, but more especially in that from which this poor patient had sprung.

MUNIFICENT MEDICAL BEQUEST.—Mr. James Buchanan, who died a few days since at Edinburgh, has left £10,000 to the Royal Infirmary at Glasgow, his native city. In addition to this bequest, Mr. Buchanan left from £150,000 to £200,000 for the endowment of an industrial school foundation at Glasgow.

**CASES OF ACUTE RHEUMATISM,
SUCCESSFULLY TREATED WITH LARGE DOSES OF
HYDRIODATE OF POTASS.**

By CHARLES CAMPBELL, M.D.

TO THE EDITOR OF THE DUBLIN HOSPITAL GAZETTE.

SIR,—I have lately had some cases of acute rheumatism, in which I adopted a mode of treatment which I am not aware (nor have I been able to ascertain) has been tried by others. I shall feel obliged to any of your readers for information on the subject. Even should the plan of treatment be new, I can strongly recommend those who possess opportunities for doing so, to give it a trial.

My treatment is, large and frequently repeated doses of hydriodate of potass—ten grains every third hour.

I am well aware that this medicine has been for a long time used in smaller and less frequent doses for chronic rheumatism, but I have not been able to ascertain that it has been given in large doses for acute rheumatism.

Mercury is a severe, and I may say, an unsafe remedy with the poor, who have often to return to their work, exposed to wet and cold, before convalescence is fully established; this, together with other reasons which it is needless to enter into, induced me to try the hydriodate of potass.

The first patient to whom I administered it was a girl of sixteen. The case was a severe one, and I was afraid to trust to the potass alone. I therefore gave calomel and opium at night, and five grains of the hydriodate every fourth hour. The symptoms subsided quickly, and in eight days she was quite well and up. The next case was a boy between sixteen and seventeen years of age. The attack was a well marked one, and I resolved to trust to the hydriodate of potass. I, at once, ordered ten grains every fourth hour, and in five days he was going about quite well, and continued so. The last case (of which, as I took some notes. I shall give you a more detailed account) was a lad of eighteen, of full habit and fresh complexion.

On Monday, 30th November, I was requested to attend him. He stated that on the previous Friday morning, after getting up, the soles of his feet felt sore, and he found it unpleasant to walk about; he, however, went to his work as usual. In the course of that day the ankle-joints became painful. The next morning his knees were also painful; he staid at home, but did nothing, thinking it was only a bad cold. On Monday I found the ankle, knee, and hip-joints on both sides, and the wrist, elbow, and shoulder-joints of the right side, affected. There was some slight swelling of the wrist, knees, and ankles, and the same joints exhibited some streaks and patches of redness, chiefly about the situation of the lateral ligaments. The pulse 104, small, and rather weak; the tongue thickly coated with a white fur; the skin bathed in profuse perspiration; the urine high-

coloured and rather muddy, although not depositing much sediment; bowels constipated: he also complained of an uneasiness, almost amounting to pain, in the epigastric and præcordial regions, with oppression about the chest, and tendency to cough; and he said he had not slept for two nights.

Percussion showed some increased extent of dulness in the præcordial region. I gave five grains of calomel with one of opium at once, and in two hours afterwards he began the hydriodate of potass, in ten-grain doses every four hours.

December 1.—The joints of the lower extremities are almost free from pain; the wrists and elbows continue in the same state as yesterday pulse, 96, fuller and firmer; tongue still coated and brown in the centre; perspiration not so profuse; urine showing a copious deposit of lithates; bowels moved seven times. The uneasiness in the præcordial region now amounts to pain; the breathing is hurried, the countenance anxious, the nasal in strong action, the dulness in præcordial region more extended, and with the stethoscope I detected a loud bruit with the first sound of the heart.

A blister was applied to the region of the heart, and the hydriodate continued in same doses every third hour.

December 2.—All the joints free from pain except the right shoulder and the left elbow, of which he complains a little to-day; countenance calm and rather cheerful; breathing much less hurried; says the pain in his chest has left him; the dulness of same extent as yesterday; loud bruit audible with first sound of heart; second sound more clear and distinct than yesterday. Pulse 90, with a peculiar thrill; tongue cleaning at tip and edges; skin natural; urine heavy, with lithates; bowels moved twice. Continue mixture every third hour.

December 3.—He again complains of slight pain in the right hip and the inner side of right knee, otherwise the joints exhibit no trace of the disease; countenance good, breathing regular, and no uneasiness in the chest; dulness seems less in extent; bruit still audible; pulse 80, and has lost the thrill; tongue cleaning; bowels moved twice; urine natural in colour, with a slight deposit. Continue mixture every third hour.

December 4.—Pulse 76; tongue quite clean and healthy; urine clear and natural; bowels opened twice; no pain in any part; no uneasiness in the chest; breathing, quiet and natural; bruit audible; says he feels quite well, and is calling eagerly for solid food. Hydriodate of potass to be continued every sixth hour, and next day reduced to five grains, three times a-day.

December 10.—I saw this boy to-day. There is still a greater extent of dulness than natural, and the bruit is still audible; he does not feel as strong as before his illness, but in other respects he is quite well, and is up and going about. He still takes bark and hydriodate of potass, with the hope that any deposit on the valves may, perhaps, be removed.

The affection of the joints appears to yield rapidly and decidedly under this treatment; but whether the improvement in the cardiac symptoms would have been more marked had mercury been administered, is, I think, the chief point to be considered.

Oldcastle, Co. Meath.

CASE OF ENLARGED SPLEEN, CAUSING HÆMATE- MESIS AND MELENA,

AND TERMINATING IN ASCITES.—EVENTUAL CURE
BY MERCURY.

By HUGH CROSKERY, L.R.C.S.I.

Master Edward Ewbank had an enlarged spleen, from repeated attacks of intermittent fever, and residence in a malarious district. On the 17th of August I was suddenly sent for, and found that the child had vomited about twelve ounces of blood. There was considerable excitement of the system, as indicated by carotid pulsation, and a small, rapid, and wiry pulse. Small doses of turpentine, beaten up with yolk of egg, were given at intervals of ten minutes, with success. On the day following the hæmorrhage again occurred, and the same treatment was adopted. For several days afterwards he was kept quiet, and aloof from all excitement, and small doses of tincture of digitalis were given every three or four hours, with infusion of roses. About ten days afterwards the hæmatemesis returned, and about three ounces of blood were lost; the stools, too, now became black and tarry. Grain doses of acetate of lead were now substituted for the turpentine, but with little better effect than that of arresting the hæmorrhage for the time. When the stomach was irritable the lead was given by enema. On Saturday night, the 13th of September, not only the hæmatemesis returned, but a fit of coughing brought on hæmoptæ. From the first the spleen was of an enormous size, and occupied nearly one-half of the abdominal cavity; from repeated blistering, and the application of tincture of iodine, its size had now been considerably reduced. I was summoned early on the morning of the 13th September, and I found the child cold, convulsed, almost pulseless, and with his pupils dilated to their entire extent. I saw that no time was to be lost, and I at once administered strong rum and camphor by enema, and had the child rolled up in warm flannels. A sinapism was also applied to the nape of the neck. The enema was repeated in ten minutes with the most happy results. All this time a cold evaporating lotion was applied to the head. Before I arrived at the house the child had been in that state four hours. An hour and a half after the first enema had been given the pulse got up, and the natural heat returned to the body, and the child became perfectly conscious. With regard to

the pathology of the case, I was convinced that the spleen was the cause of all this mischief, and that this was merely an effort of nature to unload the spleen through the vessels of the stomach of the unusual quantity of blood. I knew also that if I distended the stomach with food, even to the smallest degree, the hæmorrhage would occur afresh. I resolved, then, to sustain life by enemata alone, and not to give a single morsel of anything by the mouth for some days. About two ounces of strong chicken soup were now given by enema every two hours, night and day, and two grains of sulphate of iron and sulphate of quinine were added to each alternate enema. Besides this, tincture of iodine was applied over the region of the spleen, and ten drops of the syrup of iodide of iron given three times a day. In about ten days the enemata were gradually discontinued, and nourishment was given, frequently and in small quantities, by the mouth. Under this treatment the child gradually gained strength and colour.

On the 26th of September symptoms of ascites suddenly set in, and I resolved to move the child, at all hazards, from the bed of malaria where his father's house was situated, to a healthier and more elevated spot. This was at once done; and although vapour-baths, diaphoretics, diuretics, &c., were administered, with a view not only to remove the fluid that had already rapidly accumulated, but to check further secretion, in four days the abdomen was so much distended as to interfere materially with respiration. In addition, the poor little sufferer had an incessant thirst, and a dry, harassing cough.

September 30th.—The girth round the abdomen was now twenty-eight inches, and besides the large accumulation in the peritoneal cavity, the feet and legs were oedematous. I resolved to draw off the fluid, by tapping, on the morrow, if a decided change did not take place during the night. I had been giving him, heretofore, acetate water of ammonia, with acetate of potass and spirits of nitric æther, in camphor mixture; and although this was given every hour, the urine continued scanty, high-coloured, and of high specific gravity, and the skin remained rough and dry. I now ordered a mixture of bitartrate of potass, sweet spirits of nitre, and water sweetened with sugar, and the child drank about an ounce of this every hour. In about six hours a decided change took place, and the kidneys acted so powerfully, that next morning the circumference of the belly was about an inch and a half less than it had been the day previous. Besides this, he had copious alvine evacuations during the night. The child was kept continually rolled up in warm flannels, to guard against a relapse. Four days after this treatment had been commenced, the circumference of the abdomen was reduced to twenty-four inches; and its walls, which had been heretofore stretched even to bursting, were now loose and flaccid. He had occasionally a little cough, which was always relieved

by the addition of a few drops of Tinct. opii camph. to his mixture.

October 9.—Last night, after a vapour bath, the nurse foolishly allowed the child to lie naked in bed, and the result is, that no urine was passed during the night, and that the girth of the belly is greater than it had been on yesterday. He was put into a vapour bath at once, and immediately afterwards rolled up in a warm blanket.

October 10.—The accumulation of the fluid has evidently been increasing. His skin is moist, and his evacuations healthy, but the kidneys are not acting as well as heretofore.

October 11.—The girth of the abdomen is now even greater than ever it had been. The state of the weather has been most unfavourable to the case from its very commencement; it has rained continually from day to day, and there is yet no prospect of a change.

October 12.—The accumulation still increasing, I made up my mind to perform the operation of paracentesis abdominis at once, and having adopted the usual precautions, I drew off ninety-two ounces of a clear straw-coloured fluid, highly albuminous, and of the specific gravity of 1.010, a diaphoretic and diuretic mixture was ordered, and ten grains of the saccharated carbonate of iron was given three times a day, and the bowels were kept freely open by occasional doses of compound powder of jalap. Still the kidneys acted but very sparingly, and in a few days it became very evident that the fluid was re-accumulating. The feet, legs, and scrotum became œdematous; and on the 25th he was again tapped, and a large wash-hand basin of fluid drawn off. Within two days the little sufferer improved wonderfully in strength, so much so, that, with slight assistance, he was able to walk across the room. The diuretic mixture was altered, and he was ordered the citrate of iron and quinine, with syrup of iodide of iron. To further stimulate the absorbents, an even and regulated pressure was kept up over the abdomen. This treatment was kept up for some days, but it soon became very evident that the balance between secretion and absorption had not yet been restored. Six days after the second tapping, the girth of the abdomen was twenty-seven inches, and the feet, legs, face and scrotum were dropsical. I resolved now to try mercury, and gave three grains of Hydrarg. cum cretâ and two grains of antimonial powder every three hours; all else to be discontinued, except the diuretic mixture. The mercury was commenced on the morning of the 1st of November, and on the evening of the 2nd, it became plainly evident that it was acting not only on the system *but on the disease*. His appetite, heretofore inordinate and depraved, now became regular; the swellings in the legs, face, and scrotum had already disappeared; the circumference of the abdomen was, by measurement, ascertained to be less; the kidneys were acting well, and a sensible perspiration pervaded the entire surface of the

body. Ten days after the mercurial treatment had been commenced, every symptom of the disease had disappeared, and the child had gained strength to such a degree as to be able to run about the house.

Remarks.—With regard to the pathology of the case, it is very evident that the spleen was the organ primarily in fault. The rapid change of volume that this organ undergoes, not only during a fit of ague, but likewise during the process of digestion, is sufficiently well-known. It will be seen that in the treatment of the case, the child was sustained entirely by enemata from the 18th to the 24th of September, and that by this means the hæmorrhage was arrested, and the spleen diminished considerably in size. That, to further assist in the reduction of the organ, sulphate of iron and quinine were administered by enema, and small doses of syrup of iodide of iron by the mouth. Notwithstanding all this, one of the most common sequelæ of enlarged spleen ensued—namely, ascites. It will be seen that vapour baths, diaphoretics and diuretics, iron and iodine in various forms, along with a carefully regulated diet, had no effect on the disease; and that after two tapplings, and when there was every prospect of a third, the disease was happily and at once arrested *by the administration of mercury*.

Mullet Hall, Chapelton, Jamaica,
Nov. 25, 1857.

SYME'S AMPUTATION.

TO THE EDITOR OF THE "HOSPITAL GAZETTE."

SIR—In a recent communication of a case of diseased os calcis, in which I performed Syme's amputation in preference to removal of the os calcis alone, I stated that I believed this last operation was less likely to be followed by a serviceable extremity after the strong buttress of the os calcis was taken away from the foot. I still think this is generally true. But Dr. Eyre Foy, of New York, has transmitted me a case in which he removed the entire os calcis with a favourable result. I send you Dr. Carnochan's history of the case.

I remain, Dear Sir, yours truly,

JOHN HAMILTON.

January 19, 1858.

EXSECTION OF THE ENTIRE OS CALCIS.

Operations for the removal of portions of the os calcis have been frequently performed; its entire removal, however, has been resorted to but in very few instances. In a case of necrosis of this bone, occurring in a boy eleven years of age, and of strumous diathesis, which came under my notice as early as the year 1846, the whole of the bone was extracted without difficulty. The following case of successful removal of the entire bone, for *caries* of its greater portion, by a formal operation and dissection, is the only one, so far as I know, which has been reported in this country. Such an operation is required for extensive caries, for osseous tu-

more, for osteo-aneurism, and for injury done to the bone from gun-shot wounds, or from other traumatic lesions.* In osteo-aneurism, particularly, where the pathologic condition must certainly be limited by the extent of the os calcis, it is bad practice to resort to amputation of the leg—an operation which, under such circumstances, will compromise the life of the patient, subject him, unnecessarily to a severe mutilation, and interfere, afterwards, with the comfort of life.

Case.—John Moehrig, labourer, a native of Germany, aged twenty-eight years, was admitted into the State Emigrant's Hospital on the 11th of October, 1854, with caries of the posterior part of the foot. According to his statement, he is of scrofulous parentage, but is himself healthy, with the exception of the local disease, and the apparent effects of prolonged irritation acting upon his system. In October, 1852, after exposure to severe cold, he was attacked with severe pain in the whole lower limb. The region of the ankle and heel became swollen, red, and exceedingly painful; matter in time formed over the os calcis; and this being evacuated, the bone could be felt with the probe, bare, and extensively diseased.

Upon his entrance into the hospital, the ankle and the posterior part of the foot were much swollen; the region of the heel and instep was hard, enlarged, and purple on the surface. Three sinuses existed upon the outer and upper portion of the posterior part of the foot, the outer sinus allowing a probe to pass deeply into the bone. Since his attack he had been unable to follow his vocation or to put his foot on the ground, and could walk only by the aid of crutches. His general health had deteriorated from want of exercise and from the continuation of the discharge.

He was immediately put upon tonic and anti-strumous remedies—quinine, iod. potassium, and Lugol's iodine solution being alternated, while emollient applications were used upon the diseased parts, and the recumbent posture enjoined. Therapeutic means proved of no avail; the patient rather retrograded than gained; and fretted continually by his disease, at last demanded an operation, to relieve him from his painful, and as he termed it, miserable condition.

This alternative being decided upon, the question arose as to amputation of the leg, or exsection of one or more bones of the tarsus. From the external appearance of the part, it might reasonably be supposed that more bones than one were affected; and, with this opinion, amputation of the lower part of the leg was suggested by some, as being the most proper proceeding. The sinuses, however, led to the os calcis, and the probe could not detect denuded bone elsewhere. It was finally decided to exsect this bone first, and to proceed to amputation, if the other tarsal bones were found sufficiently implicated.

On the 1st of December, 1855, the patient was brought into the amphitheatre, and chloroform administered. He was placed upon the table, with his face downwards, the diseased foot and the lower part of the leg projecting over the margin of the table. The assistants being properly placed, an incision was made on the outer margin of the tendo-Achilles, commencing about an inch above the external malleolus, and extending downwards to the lower and outer part of the heel, to a point half an inch above the plantar border of the foot. From the termination of this incision another was made to extend along the outer aspect of the foot to within half an inch of the posterior extremity of the fifth metatarsal bone. From the upper part of the first incision another was made directly across lower part of the leg, terminating a little within the inner margin of the tendo-Achil-

les, at its upper part. The two flaps thus formed were reflected—the outer from the external aspect of the os calcis, the inner from its internal surface, carefully protecting the posterior tibial artery and nerve, as well as the adjoining tendons. With a blunt-pointed bistoury, the tendo-Achilles was divided close to its insertion. The tendons of the peroneal muscles were then carefully separated from their tendinous sheaths and hooked to one side; the same precaution was also taken with the tibialis posticus, the flexor communis longus digitorum pedis, and the flexor longus pollicis pedis. The external lateral ligaments were then divided, and the joint between the astragalus and os calcis entered from behind. Using now the calcis as a lever, the interosseous ligament the calcaneo-cuboid, and other ligamentous connections between the different bones with which it is connected were divided, and the exsection of the bone completed, by carefully dividing the strong ligament running under the tendons of the tibialis posticus and the flexor longus digitorum pedis, between the internal malleolus and the *small process* upon the inner and anterior part of the os calcis. The different steps of the dissection are much facilitated by making the assistant, who has charge of the leg, flex it slightly upon the thigh, in order to relax the peronei and the flexor muscles of the foot; and also by everting or inverting the foot. By these movements, the ligamentous bands of union between the bones are stretched and made more tense.

The articular surfaces of the bones in contiguity to the calcaneum were entirely healthy. The lips of the wound were brought together by points of interrupted suture, and the wound dressed so as to heal by first intention.

In performing operations on the lower extremities the principle may be laid down, that the incisions should be fashioned so as to leave the resulting cicatrices removed from the influence of pressure or friction during locomotion. This object is attained by an operation projected upon the plan above described. The cicatrix does not in the slightest degree encroach upon the plantar aspect of the foot; consequently, during the movements of progression, it is not exposed to the contact of any surface by which irritation could be produced.

Low diet with anodyne drafts at night, were prescribed for a few days. The tonic treatment was again resumed and continued. The wound gradually healed, continuing to discharge, from a point under the external malleolus, a considerable amount of seropurulent matter. This gradually ceased, and, three months after the operation, the cicatrix was sufficiently hard to allow the patient to put his foot to the ground and walk.

The pathological condition of the os calcis is such as to place it beyond the reach of restoration by internal or constitutional means. The bone is very considerably enlarged by the inflammatory process which has pervaded its whole extent. The greater part of the bone and particularly the posterior and outer portions, are in a state of confirmed caries. The more anterior portions, and those parts not affected by actual ulceration, are expanded, and in a state of sub-inflammation.

December, 1856.—The patient soon became strong and healthy, and at the present time, with a padded heel to his shoe, he walks with but little impediment, and without the slightest inconvenience from the cicatrix.

THE FOOD OF PARIS.—The Parisians are returning to the Roman type of luxury in their diet: they have become enamoured of snails (*escargots*). To such an extent has the consumption of snails increased, that it threatens seriously to injure the oyster trade. A whole side of the new fish-market is devoted to these delicacies amongst shell-fish, the rest being frogs (*crisseries*). Paris, last year, used to eat 6,000 baskets of oysters per diem—that is, 78,000 of these molluscs; it now consumes but 52,000, or 4,000 baskets. These figures are obtained from the *Octroi* returns, and are therefore reliable.

* Where a short bone is in a condition of complete necrosis, it is commonly detached by the absorbents from the other tissues, and can be extracted by means of the fingers or forceps. Such proceeding cannot properly be called an *exsection*, although an incision of the soft parts may be used to facilitate the extraction of the dead bone.

Proceedings of Societies.

PATHOLOGICAL SOCIETY OF DUBLIN.

December 12th, 1857.

Scrofulous disease of the Testicle.

Mr. SMYLY said the morbid specimens which I present to the notice of the society were taken from the body of a patient, aged 45, who first came under my notice about two-and-a-half years ago. He had then a strumous enlargement of the right testicle, the size of a goose's egg; and for this he had been subjected to a variety of treatment, both in London and elsewhere; it was even proposed to remove it. However, by suitable treatment by pressure, and the occasional use of the bougie, the swelling was so far reduced that we considered him perfectly cured, the testicle being reduced to its normal size. (Mr. Smyly here shewed both testicles, which were of the same size, although in one a large scrofulous tubercle occupied the place of the epididymis). He remained apparently well of disease of the testicle, and followed his usual avocations for a year and a-half; during this period he was subject to frequent attacks of bilious diarrhoea and vomiting. About three months ago he received a severe mental shock from some afflicting news; his mind was greatly affected, and shortly after he became deeply jaundiced; his skin became perfectly yellow; ultimately of a dark green hue, and remained so in despite of all treatment. The liver, which I present for examination, I think fully explains the cause of this condition. The gall bladder is enormously distended, a mass of tubercular matter closing up its duct. The liver is mottled with tubercles which present a great resemblance to those of cancer. (I have had some of this matter submitted to microscopic examination, and the gentleman who examined it said that he was unable to say decidedly, from the appearances, whether or not it was cancer). On making a section of the liver, we find that these tubercular masses vary very much in size, from that of a millet-seed to that of the kernel of a nut. The substance of the gland is very brittle and highly congested, the surface is neither elevated nor depressed. The spleen is rather small, and entirely free from tubercular deposit; and I believe that this is contrary to what usually obtains, namely, that tubercular disease of the spleen co exists with similar disease of the testicle. The lungs were not at all diseased; of this I feel perfectly certain, although they were not examined after death. The patient had no symptoms of chest affection during life. The pancreas was studded with hard tubercles; these had more of the characters of cancerous formation—it was by these that the ductus communis choledicus was obstructed. I may mention that this patient never saw objects as if tinged yellow, although his jaun-

dice was most intense, and what might justly be termed "black jaundice." A remarkable feature of his case was, that he never was depressed, as is usual in such cases, but always was in good spirits, and never despaired of his recovery.

19th December, 1857.

Cheloid Tumor.

Mr. FLEMING presented a portion of integument recently removed from a woman aged between 45 and 50. It exhibited, in the earlier stages of its development, that rare form of dermoid disease termed "Keloides." The subject of it was married, and had all the ordinary signs of good bodily health. The tumor had gradually grown upon the edge of a large cicatrix which was visible in the centre of the dorsal region, between the scapulae. The cicatrix was not less than six inches in length, and its middle portion about three in breadth. It was the result of an operation, performed sixteen years back, for the removal of a tumor, which the woman stated was the size of the closed fist, and which, externally, presented the characters of that now present. This first made its appearance about two years past; its origin was attributed by her to a blow from a stick, which struck the cicatrix, and wounded it at a point, so as to cause bleeding, when, commencing as a small tumor, about the size of a grain of barley, it gradually reached its present size. The site and appearance of the tumor on the left margin of the cicatrix alluded to, were well shown in a very accurate sketch taken by Mr. Gaffney, one of the pupils attending the hospital. It had a pinkish hue, was hard, and nodulated to the touch, and was evidently identified with the true skin; in fact, it was wholly confined to it, and was so solid and firm throughout, that the diseased mass could be as if rolled to either side on its edge, and easily raised from its bed. It was in length about three inches, and in breadth from three quarters of an inch to an inch. The pain attendant on it was trifling; its exposure to friction alone rendered it annoying; and its increasing growth caused so much alarm, as to demand, on the part of the woman, its removal. An elliptical incision embraced the whole of it; it was excised under "congelation," and tolerably satisfactorily. It was so adherent to a portion of the fascia underneath, that the latter was necessarily divided in its removal.

On close examination of the specimen, Dr. Fleming said it was evident that the disease was developed in the structure of the true skin, and that the morbid deposition took place in distinct, isolated growths, connected together by strong fibrous bands. Those deposits were very hard and compact in structure, and showed a disposition to increase rather towards the outer than the inner surface of the integument. A section through

them—some of which were larger than a garden-pea, and somewhat oval in shape—presented a fibro-cartilaginous appearance; and although not strictly encapsuled, they had yet a very abrupt marginal circumference. Their aspect was very schirrhoid. No succus or juice, however, could be expressed from their cut surfaces. Mr. Barker, the Curator of the Museum of the College of Surgeons, examined sections of the tumor, and stated in a letter to Dr. Fleming, "that the structure seems to consist of a mass of oviform cells, lying in no definite directions, bound together by fibrous bands, little vascular, and with oil globules here and there. The cells are elastic, tumid, dense, and all of a uniform size, about three or four times the size of blood-discs. This appearance is not at all like true cancer. Its recurrence is to be looked for, as some of the cells are seen beyond the margin of the tumor." This remark is consonant with the opinion usually entertained respecting "keloides;" and if the original disease which existed in this case was of that character, it is specially remarkable that so long an interval should have elapsed previous to its recurrence. It is also remarkable that every portion of the cicatrix, except that in immediate contact with the new growth, was perfectly healthy.

Dr. Fleming also exhibited an excellent cast and a drawing by Mr. Connolly, of this class of "dermoid tumor," which had grown in the cicatrix of a burn on the dorsum of the foot of a girl aged 19 years, who had been a patient of Mr. Adams, in the Richmond Hospital, and who had the opposite limb amputated for strumous disease of the knee-joint. He also exhibited a cast of the same disease on the side of the neck, taken from a patient of Professor Smith, and supervening, as well as he recollected, on the cicatrix of a burn. He also alluded to the plate in Dr. Warren's work on tumors, where this disease was not alone regenerated in the cicatrix of the wound made in the operation performed for the removal of the original growth, but also showed itself in each of the points where needles had been introduced for the treatment of the wound. He deemed it unnecessary, however, to trespass on the time of the Society with details on a subject with which the members were familiar. All dermatologists noted the very rare occurrence of the disease, its propensity to select special localities, and its great disposition to recurrence. Dr. Neligan has treated on this subject in his valuable work on diseases of the skin; and Erasmus Wilson, in his admirable Atlas, has a plate delineating it in a very usual situation, and connected with a case, the particulars of which cannot but be read with instructive interest. The specimen which Dr. Fleming exhibited to the Society he considered peculiarly valuable, as being explanatory, in the early stages of the growth of the disease, of many of those peculiar appearances which it assumed when more advanced, or when fully established.

Extensive deposit of Cancerous Tubercles.

Dr. JOHN HUGHES presented specimens of extensive cancerous deposit, taken from the body of an unmarried female, aged about 40, who was admitted into Jervis-street Hospital in a moribund condition, and continued to sink rapidly. She had a dark livid tumor of the breast, which was evidently of a cancerous nature, and was of twelve months' duration. On examining the body after death, cancerous deposits were found in several other situations. First, on the surface of the lung, just beneath the pleura, in the form of numerous small cancerous tubercles; but on cutting into the lung there were none to be found through the pulmonary structure, they seemed to be entirely confined to the surface and enclosed in the pleura. The pericardium, also, was the seat of these cancerous deposits; they were found on it in great numbers. The internal surface of the membrane, however, was not rough, and therefore did not suffer from any irritation.—Dr. Hughes considered that cancer, disseminated over the surface of the lung, is rare, being generally found in the form of infiltration through its substance, or else as one or two large nodules upon its surface, giving rise to symptoms of compression. The glands, in the anterior mediastinum, were much enlarged and hardened, as also were those in the axilla. In the anterior wall of the uterus was found a single cancerous tubercle.

BELFAST CLINICAL AND PATHOLOGICAL SOCIETY.

December 12, 1857.

The PRESIDENT in the chair.

Last session (November 15, 1856), Mr. JOHNSTON presented a man, aged 60, affected with

*Anæsthesia of the Cutaneous Surface of the greater portion of the Thorax.**

Some members at that time thought it was a form of neuralgia; others that the seat of the disease was in the spinal marrow. Mr. Johnston again brought the patient under the notice of the society. The disease has existed above four years. The symptoms have made very considerable advance during the past twelve months. Neuralgic pains, shooting from the dorsal region around the thorax to the epigastrium, are very severe. The cutaneous anæsthesia still exists, but does not seem to have extended; for a time the patient thought his sense of feeling improved. He has often in the affected part sensation of warmth and cold. In addition, however, to the previous symptoms, he now presents manifest unsteadiness of gait. When he sits he wishes to relieve the spine of the weight of the body by supporting himself

* See DUBLIN HOSPITAL GAZETTE, Dec. 15, 1856.

with his hands, and leaning back. The functions of the bladder are unaffected—there is some difficulty in defecation. There is no paralysis of motion or of sensation in the upper extremities. No decided evidence of any cerebral lesion. The senses are perfect. No evidence of cardiac or pulmonary disease. Mr. Johnston considered the case as one of organic disease of the spinal marrow—probably ramollissement—seated in the upper portion of the dorsal region. He regarded as a feature of special interest, the first manifestation of the disease (four years since) in the “numbness” of a patch of skin about the size of a half-crown at the angle of the right scapula. The man himself attributed the disorder to cold.

Mr. BROWNE, V.P., shewed a case of *Conical Cornea* in a woman, aged 39. She had suffered from ophthalmia from infancy, and the affection of the cornea had existed from eight to ten years in one eye, and six in the other. There was still tolerable vision in the right eye. Mr. Browne considered this affection to depend on a chronic form of inflammation; that it was incurable by operation or otherwise; but that its progress might sometimes be arrested by a tonic plan of treatment. Nature seemed sometimes to resist the thinning process by the effusion of lymph. A concave glass, with diaphragm to exclude the outer rays, was occasionally of use.

The PRESIDENT presented a female with what he believed to be *Osteosarcoma of the hard palate*. It was of fifteen years' duration, and had latterly enlarged. Its surface was unequally resistant. He proposed its excision.

Dr. MURPHY exhibited the foot of a boy, which he had amputated for *Osteitis* consequent on injury, followed by extensive ulceration and copious hæmorrhage. The os calcis was almost destroyed; its texture soft and friable, and the astragalus also was found much diseased within five weeks of the accident. Amputation was performed rather below middle third of leg, to give a long stump. Dr. Murphy preferred amputating above rather than at the ankle-joint, as securing a much better stump, and more perfect locomotion afterwards.

Professor KEID shewed the brain and kidney of a woman, aged 19, who had died two days previously in hospital. For the first five days after admission she had presented no symptoms of brain-disease. They then supervened, and there was constant screaming for a period of eighteen hours, followed by a rational interval; pain of back had been complained of, and the urine was albuminous. The *post mortem* examination revealed thickening of the membranes at the base of the brain, more especially about the optic nerves. The kidneys were decidedly fatty, and there were, moreover, specks or small particles of tuberculous matter in both their cortical and tubular substance. The woman was emaciated, and the cerebral inflammation of a subacute character, and Professor Reid surmised that the latter was dependent on the dis-

ease of the kidneys, which he conceived to be the original morbid affection.

December 19th, 1857.

The PRESIDENT introduced a man whom he had formerly presented to the Society whilst suffering from *Popliteal Aneurism*. He had been completely cured. After thinning of the integuments had far advanced, absorption of the tumor had taken place, by means of compression with Carte's instrument.

Mr. JOHNSTON detailed the following cases of

Hernia, with Intestinal Hæmorrhage.

Alexander Stienon, æt. 50, a weaver, had rupture for above thirty years. He never wore a truss, but always enjoyed good health, and was always able to reduce the hernia, except once, about twenty years since, when he was ill for two or three days. His wife states that at that time he had a large discharge of blood from the bowels, and the rupture was reduced without surgical interference. He went to his work on Wednesday, November 25th, as well as usual, returned to work after dinner, but about six o'clock he felt unwell, and complained of pains in the bowels. He now found that he could not reduce the rupture. He reached home about eight o'clock; Surgeon Hanna saw him about one o'clock, and found that he had a very large scrotal hernia. The tumor was tense, painful, and irreducible. He advised him to go to hospital, but he preferred remaining at home, and taking some castor-oil, and using a fomentation. During the night he repeatedly tried to effect the reduction of the hernia, and, not succeeding, he fell asleep. About three or four o'clock, A.M., when he awoke, he was greatly gratified in finding the tumor reducible; but his wife now observed that he was very much changed, being pale and faintish. The pains were gone, but he was thirsty, and complained of soreness and “heart-weakness.” In a short period he felt inclined to get up to the night-chair, when he had a very copious evacuation of blood. I saw him during the day, and found the tumor reducible, but the patient in collapse. His pulse was scarcely to be felt; his extremities were cold, his features pinched, eyes sunk; one sound only of the heart audible, and an anæmic bruit over apex; little or no tenderness of the abdomen, which was slightly tympanitic. I ordered a mixture of acetate of lead, and administered some opium, and directed whiskey punch. The bowel was reduced with ease. Dr. Wheeler saw him with me in the evening, and we both regarded him as in a dying state, there being as yet little reaction. The following day I was surprised to find a decided improvement. Pulse could be distinctly felt; surface was warm; the second sound of the heart was audible; no vomiting, nor further discharge of blood by stool; no abdominal tenderness; tongue thickly coated; complete ano-

rexia. This day Dr. Moore saw him with me, and to neither of us did there appear any evidence of peritonitis, but the weakness seemed attributable to other causes. The case was one for stimulants and nourishment. For a day or two I had some hopes of his recovery; hiccough, however, now annoyed him very much, and he had some tympany of the abdomen. He took no nourishment, his bowels became relaxed, and he died from asthenia on Tuesday, December 1st, at half-past six o'clock, P.M.

At first, on visiting this patient, I asked myself, if the complete state of collapse could possibly indicate any rupture of the bowel; but *at that time* the absence of vomiting, hiccough, or tenderness or swelling of the abdomen, contra-indicated such a conjecture, as well as the idea that there was any extensive peritoneal inflammation. I therefore attributed the collapse to the hæmorrhage; and here I was again at a loss as to the cause of the latter—whether it was owing to the attempts at reduction, or to an effusion of blood in consequence of extreme congestion of the capillaries of such an extensive surface of strangulated intestine, the hernia being very large. I examined one evacuation he had a few days after the hæmorrhage, but did not discover any blood; it was rather of a thin, fluid character, and of a greyish colour. Did the hiccough and tympany towards the end indicate a low form of peritonitis? At no time was there any considerable degree of tenderness. The circumstances of this case reminded me of another which came under my observation when resident in the Richmond Hospital. A healthy, middle-aged man was admitted *about noon*, with strangulated hernia. I was directed to try the taxis, and administer an enema. Repeated efforts were made to effect reduction, but without success. I was directed to summon a consultation of the surgeons for eight o'clock, P.M., and to let the patient have a warm bath at the same time. When the patient was in the bath I found he was becoming very weak; still the hernia could not be reduced. I had him immediately removed from the bath; yet such was his state of prostration, that the surgeons agreed it would be wrong to operate. He never rallied, but died from asthenia before morning. I made a *post-mortem* examination, and was much surprised at finding a considerable portion of the small intestine filled with a large quantity of clotted blood, evidently an effusion from the venous capillaries.

A protracted discussion followed, in which different opinions were expressed as to the cause and seat of the hæmorrhage in such exceptional cases as the foregoing. Some members regarded the incarcerated portion of intestine as furnishing the blood; others, that it issued from a more extensive mucous surface. Some thought that it was the consequence of ulceration or abrasion, and others that it was an effusion from the congested capillaries.

Selections from British & Foreign Journals.

SYPHILITIC TUMOR OF THE STERNO-MASTOID.

A young woman was admitted into hospital under M. Nelaton's care, having a tumor at the right side of the neck. The diagnosis as to its nature involved special interest. It was situated in the course of the sterno-mastoid muscle, and occupied nearly its entire length, extending obliquely downwards and inwards, from the angle of the jaw to the sternum. It extended a little beyond the anterior and posterior edges of the muscle. It was solid, hard, and equally so in its entire extent. There was not the least appearance of fluctuation or pulsation in it. It had a certain degree of mobility over the deep muscles of the neck, but this mobility was restricted as follows:—When the sterno-mastoid muscle was relaxed, the tumor could easily be moved to the right or left, but the sterno-mastoid muscle moved along with it. If an attempt were made to move the tumor while the muscle was in a state of contraction, it remained fixed. In short, it was easy to observe that the tumor and the muscle were united. The upper and the clavicular portions were free, but the lower three-fourths of the sterno-mastoid were involved in the tumor. The skin over it was less movable, and moved less freely than natural. In one spot particularly in front, it had a diffused erythematous blush. In this spot the patient felt pain, as if bruised; it was so severe as to make her cry out frequently, and came on at irregular periods, both of the day and night. Pressure, even the slightest, caused very severe suffering.

The only inconvenience which the neighbouring organs suffered from the contiguity of this tumor was a slight hoarseness, like that of the voice of cretins. The trachea seemed slightly pushed aside, but there was no appreciable difficulty of respiration, and deglutition was not impaired.

We need not go through the different reasons which Nelaton assigned for his diagnosis that this tumor could not be cancerous, ganglionic, hydatid, nor aneurismal. Independent of its form, mode of development, and local characters excluding these different affections, there were direct and positive characters, which in a measure proved the nature of the case: that it was, in fact, a syphilitic muscular tumor.

There were two principal reasons for coming to this conclusion:—1st, that the tumor formed part of the muscle, and was actually formed at its expense, as was proved by the simultaneous mobility or immobility of muscle and tumor; 2nd, the fact that other signs of constitutional syphilis co-existed in this patient. In fact, she had on different parts of her body, particularly on her legs, several marks of old swellings and ulcers, the appearance of which left no doubt as to their origin and nature. She had, besides, pains in the cranium, which, although they had not the nocturnal character, were not the less diagnostic. She remembered, also, having had an eruption some years ago. There was only wanting the history of the primary sore; but we know how often, in women at least, the primary sore is overlooked, and the syphilitic infection only known by the secondary constitutional symptoms.

Writers on syphilis have long recognised different changes produced by it in the muscles, but it is only within a few years that syphilitic muscular tumors have been carefully studied. Examples of such have been recorded by Ricord, Vidal (de Cassis), and Nelaton. The most complete work on the subject—a true *opus ex professo*—is that of M. Bouisson, published in 1846, in the *Gazette Médicale*, and very lately published at length in a volume of memoirs, under the title of *Tribut à la Clinique*. In the last memoir in this volume are several examples of syphilitic muscular tumors, and among them an example of one in the sterno-mastoid

region, so similar to the case under consideration, that we venture to copy it.

A man, 55 years of age, after several attacks of syphilis, for which he had not been properly treated, was attacked with secondary symptoms—a large ulcer in the arch of the palate, pains in his bones, &c., &c., which obliged him to come into hospital. During his stay, and after some months' treatment, a tumor was observed growing on the anterior part of his neck, at the same time that the pains in his limbs returned. This tumor having increased so much as to impede respiration, Bouisson was consulted about it, and made the following note of the case:—The largest part of the tumor corresponds to the membrane of the sternum, at the point of insertion of the sterno-mastoid muscles. It is here a little bilobulated, each top corresponding to the inferior extremity of these muscles. The superior extremity of each lobe is prolonged in the direction of the sterno-mastoid muscle, almost as high as the os-hyoides. The muscle on each side is thrown out in great relief, and appears three times the natural size. The tumor altogether represents a sort of semi-elliptic arch, swelling out at the point of junction which corresponds to the sternum.

This tumor is of remarkable hardness, especially at the upper part, where it rises into the neck. It nowhere presents any trace of fluctuation, or lobulated feel; no throbbing could be felt in it, and the skin over it presented no adhesions, nor abnormal discoloration. Only the free portion of the sterno-mastoid muscles can act, for perfect rigidity prevents the contraction of the inferior half of those muscles, and consequently the proper motion of the neck. The tumor is not very sensitive, and the pain which exists in it is neither pulsating nor lancinating; it is a dull pain, as if from a bruise.

M. Bouisson prescribed frictions, with hydriodate of potass ointment, and hydriodate of potass internally. Eight days after this plan of treatment was commenced there was a remarkable improvement; the tumor had begun to resolve. On the twentieth day the tumor had diminished one-half, and continued to decrease under the influence of the specific and resolvent action of the hydriodate of potass.

In one month after the administration of this medicine the sternal portion of the tumor had completely disappeared; the sterno-mastoid muscles had resumed their original size; but the inferior third remained as hard as if a bony nodule had occupied its centre. The hydriodate of potass was continued (half a drachm daily) for a month after the cure of this tumor, and there was no sign of relapse. All the other symptoms of syphilis had also disappeared.

What happened in Bouisson's case will also, we are confident, occur in that of Nelaton—namely, that under appropriate treatment the tumor will gradually diminish in size, and ultimately disappear altogether. The patient has just commenced to take the hydriodate of potass. If this treatment did not appear to be efficacious after some time, we would combine mercurials with it. We have on several occasions found it necessary to combine these two remedies, and even to preface the administration of the hydriodate of potass by a mercurial course, particularly when, as in the present case, the patients have not undergone any specific treatment. Suppose this tumor to be left to itself, what would be its progress? Experience enables us to answer the question. M. Bouisson, in the work above mentioned, has accurately described the three principal phases of these tumors. At first the muscle becomes swollen, from a plastic grayish effusion into the substance of the discoloured muscular fibres. In the second stage the effused matter softens, and is transformed into a viscid ropy fluid, like melted gum; or an acute inflammation intervenes, and ends in suppuration, and destruction of the softened muscular fibres. And in the third stage, if the tumor has not suppurated, it becomes hard, and (like periostitic inflammations) passes through the successive steps of organization which end

in an indurated or a subcartilaginous, cartilaginous, or osseous condition. In some cases Nelaton has seen these tumours soften, ulcerate, and then spontaneously give exit to a sort of gangrenous central core. Whatever be the mode of termination, in most cases the muscle is destroyed. This fact is sufficient to prove the utility of treatment, and, moreover, the importance of a correct diagnosis, which alone can lead to the proper mode of treatment.—*Gazette des Hôpitaux*.

THERAPEUTICAL SECTION OF THE IMPERIAL ASSOCIATION OF PHYSICIANS OF VIENNA.

Professor Sigmund has given pepsin to syphilitic patients, at the same time that balsam copaiba, corrosive sublimate, &c., &c., were administered, with the effect of the appetite and the digestion remaining undiminished.

Dr. Mayr mentioned that he had given pepsin with whey to children, and that they had borne it well.

Professor Oppolzer had exhibited pepsin in obstinate vomiting, in the convalescence of typhus fever, and also in catarrh of the stomach, with good results. He also reported the following observations from his practice: a case of saccharine diabetes, occurring in a gouty individual, cured by the Carlsbad waters. The urine of this person was examined, previous to his departure for Carlsbad, by Rose, of Berlin, and found to contain nine per cent. of sugar; on his return it only contained one per cent.; and after passing the winter in Italy it disappeared altogether. Oppolzer was induced to recommend a residence in Italy, from having remarked that diabetic patients are generally better in summer than in winter.

Two cases of disease of stomach cured by the use of sour milk for fourteen days. The first was cardialgia after each meal; the second was "vomitus ingestorum." In another case of "vomitus ingestorum," with associated cardialgia, in which nux vomica, bismuth, sulphate of zinc, and the milk-cure were resorted to in vain, the patient was cured by the application of epithems to the region of the stomach, which were at first cool, and subsequently iced.—*Leitschrift der k. k. Gesellschaft der Aerzte zu Wien*.

EPIDEMICS IN FRANCE.

Typhoid affections prevailed in Paris during great part of 1857. Latterly the nature of the epidemic has completely altered; typhoid fevers have diminished in frequency, lost their epidemic character, and given place to another affection, the *influenza*, which, though less severe in character, is, perhaps, more universal. At the end of the December fogs the *influenza* suddenly appeared in Paris, and for the past month there is scarcely a house exempt from it; and once it enters a house, it is almost certain to attack every individual in it. If an epidemic of such extent were very fatal, scarcely a third or fourth of the population would survive. Fortunately the epidemic is very mild in its nature, but not so much so as to admit of too great security. It does not consist of a simple bronchitis or coryza, so common at the beginning of winter (and which latterly, by an abuse of the term, have been called *influenza*), but in a true epidemic *influenza*, such as raged with such great severity in Paris in 1852, before the great epidemic of cholera, and several times since—i.e., a catarrhal fever, characterized chiefly by pain in the back, quick pulse, hot skin, intense headache, incessant persisting sensation of heavy weight in the head, a *subural* condition of the *primæ viæ*; and, in fine, a complete state of prostration, which is, as it were, the peculiar characteristic or mark of the epidemic. It usually lasts for a week; in some persons only for three or four days, while in others it lasts for twelve days or a fortnight. It usually localizes itself as a bronchitis

sometimes as an angina or a gastritis; but in some cases it assumes a more serious character, and passes into a catarrhal pneumonia which ends fatally. Several cases have proved fatal in this way, in hospital, and it was from this complication that Legendre died. The treatment consists in the use of evacuates. Their administration is almost always followed by a sensible amendment in the general condition, and especially by a diminution of the painful and wearying headache. It brings the bronchitis to a speedy resolution, and anticipates the pulmonary congestion which might follow it. The emetico-cathartic plan is that to be preferred. Fifteen grains of hippo, with three-fourths of a grain of tartar emetic, may be given to an adult. This constitutes the principal part of the treatment, which may be advantageously followed up by the use of pectorals and demulcents, such as are generally useful in such cases.—*Gazette des Hôpitaux*, Jan. 16.

EAST INDIA COMPANY'S SERVICE.

QUESTIONS PUT AT THE EXAMINATION FOR ASSISTANT-SURGEONS.

January 11 and 12, 1858.

ANATOMY AND PHYSIOLOGY.—MR. BUSK.

1. Describe fully the structure, functions and relations of the sympathetic system of nerves; noticing its minute anatomy.

2. A line being drawn from the symphysis of the lower jaw along the lower border of the ramus, another along the anterior border of the sterno-mastoid muscle, and a third from the symphysis of the lower jaw to the upper border of the sternum in the mesial line; describe the parts contained within the triangle thus formed.

3. Enumerate the excrementitious substances met with in the human subject, and describe the sources whence they are derived, and the various modes in which they are eliminated from the system; noticing more particularly the chemical composition and character of urea, and the mode of procedure for its detection when present in the blood.

4. Describe the human blood and the changes it undergoes when removed from the course of circulation, both within and without the body; noticing the circumstances by which its coagulation is affected in either case respectively.

5. Describe the different regions into which the abdomen is divided, and enumerate the parts contained in each.

6. Describe the peculiarities of the mucous membrane in the different portions of the alimentary canal, commencing at the mouth.

7. Define the following terms:—Reflex action, centripetal impression, complementary nutrition, homologous organs or parts.

MEDICINE.—DR. WALSH.

1. Describe the anatomical characters and mode of progress of circumscribed (or nodular) apoplexy of the lung. What are its symptoms and physical signs; and what the diseases of which it is a recognized effect?

2. What are the signs of enlarged spleen? Point out the differences in the enlargement, according as it occurs in fever, in leucœmia, and in organic diseases of the viscus itself.

3. Describe the course and symptoms of uncomplicated measles.

4. What are the premonitory symptoms, actual phenomena, and immediate sequelæ of an apoplectic seizure, depending on cerebral hæmorrhage?

5. Comment on the prognosis, immediate and remote, in: (a) a first attack of rheumatic pericarditis; (b) acute morbus Brightii.

6. Enumerate the more striking characters of the urine in: (a) chronic pyelitis (inflammation of the mucous membrane of the infundibula and pelvis); (b)

severe chorea; (c) chronic cystitis; (d) saccharine diabetes.

7. Give the symptoms, signs, modes of spontaneous termination and diagnosis of abscess in the iliac fossa (unconnected with parturition).

8. How would you treat: (a) congestive menorrhagia; (b) poisoning by corrosive sublimate; (c) eczema impetiginodes of an extremity; (d) angina pectoris? [Write prescriptions in Latin, without using abbreviations, for any two of the drugs you may recommend.]

SURGERY.—MR. PAGET.

1. Describe hæmorrhoids, external and internal, in their ordinary and their inflamed states; and the plans of treatment, palliative and curative, appropriate for each kind. In this and other cases write prescriptions for whatever medicines you would recommend.

2. Describe the most frequent appearances of infantile syphilis, and the appropriate treatment.

3. Describe the scrofulous, or tuberculous, disease of the testicle, tracing it through its several stages; and state, especially, the characters by which you would distinguish it from syphilitic disease, common chronic inflammation, and gonorrhœal inflammation, of the same organ.

4. What are the principal points to which your attention would be directed in selecting a site for a general hospital? Would you, or would you not, in such an hospital, appropriate separate wards to cases of accidents, operations, and certain diseases? State reasons for whichever plan you would adopt.

5. What are the chief marks of distinction between gonorrhœal rheumatism and common rheumatism, and the chief consequences to which the former disease may lead?

6. Describe briefly the principal varieties of dislocation of the humerus, and the characters by which each may be distinguished from (1) fracture through the anatomical neck of the humerus; (2) fracture through the surgical neck; (3) fracture of any part of the scapula.

7. Describe a carbuncle, in the several stages of its progress, when not subjected to any active local treatment.

8. What are the general and the minute characters of "fibrous tumors" of the uterus? What changes do they usually produce in the uterus when they grow (1) in the mid-substance of its walls; (2) near its cavity, at the fundus; (3) in or near the vaginal portion of the cervix? What is the corresponding disease in the male?

NATURAL HISTORY, &c.—DR. HOOKER.

Answer five or more of the following Questions.

1. Describe in general terms the structure and functions of leaves; in what respect are they analogous to those of bark.

2. Give examples of active principles being present in the bark and leaves of the same plants, but absent or rare in their other organs; upon what peculiarities of structure may this depend?

3. What are the principal modifications of inflorescence? Give examples.

4. What are the structure and functions of pollen; how is it developed, and how does it act on the ovule?

5. The term fruit includes different organs when applied to the apple, nut, plum, strawberry, pine-apple, and fig; what are the organs common to all, and what are peculiar to each of these?

6. What are sago, tapioca, arrow-root, tous-les-mois, manioc, and revalenta; what plants produce them, and how are they procured from those plants?

7. What are the milk, meat, shell, eyes, husk, and coir of the cocoa-nut? define them botanically.

8. What is diastase? give examples of its action during the life of plants; and of its importance in an economic point of view.

9. What are the principal animal, vegetable, and mineral acrids or irritants, and what their sources?

14. What are the general principles upon which the science of geology is based?

15. Describe shortly the reproductive organs of birds, fish, insects, and arachnida.

16. What animals produce sponge, honey, coral, cuttle-fish bone?—and what are these several substances?

17. Describe in general terms the development of the feathers of a bird, the shells of a chelonian, mollusc, and crustacean, and the scales of a fish.

18. Define the terms archetype, vital action, organic function, animal function, absorption, assimilation, and sensation.

10. What are the principal oceanic currents; and how do any of them influence the climates of the great continents?

11. How do the climates of the east and west coasts of England differ; and what causes the differences?

12. How would you obtain a frigorific mixture artificially?—how, and under what circumstances may you be able to make ice when the temperature of the air is above 32°?

13. Describe in general terms an electrical machine and a galvanic battery: explaining the principles upon which they are constructed.

[The Examination terminated on Saturday, January 16th; there were thirty-seven candidates; three of these gentlemen retired on the first day. Appointments have been obtained by fifteen. JOHN ARMSTRONG PUREFOY COLLIER, M.D., Licentiate and Demonstrator of Anatomy of the R.C.S.L., obtained first place.]

STARVATION POINT.—If we cannot with any precision say how long starvation will be in effecting its fatal end, we can say how much waste is fatal. From the celebrated experiments by Chossat, on inanition, it appears that death arrives whenever the waste reaches an average proportion of 0·4; that is to say, supposing an animal to weigh 100 lb., it will succumb when its weight is reduced to 60 lb. Death may, of course, ensue before that point is reached, but not be prolonged after it. The average loss which can be sustained is 40 per cent.; sometimes the loss is greater, especially if the animal be very fat. Thus in the transactions of the Linnæan Society, a case is reported of a fat pig which was buried under 30 feet of chalk for 160 days: his weight fell in that period no less than 75 per cent. As an illustration of time not being an index, fishes and reptiles were found by Chossat to perish at precisely the same limit of weight as warm-blooded animals, but they required a period three-and-twenty times as long to do it in. Thus, if the experiment be performed of starving a bird and a frog during the warm weather, although both will perish when their loss of weight reaches 40 per cent., the one will not survive a week, the other will survive three-and-twenty weeks.—*Blackwood.*

PRIZE CATTLE.—Mr. Gant has done good service to the public, by exposing some of the evils of the modern system of fattening cattle. He inspected the prize animals at the last exhibition of the Smithfield Cattle Club, followed them to their destinations, and inspected them after death. He found exactly what any one would expect to find, who had thought upon the physiological aspect of the question—fatty degeneration of the muscular tissue, and excessive deposit of fat in those situations where it is normally present. He also found numerous *filariæ* in the lungs, tubercles in various stages, congested livers, and all the signs of general venous engorgement. It is quite clear that the nutritive value of the flesh of such animals is most materially diminished by the conversion into fat. A certain admixture of fat and muscle is desirable, but the conversion of muscle into fat is a change which seriously impairs the quality of meat. So far from these over-fed animals being deemed worthy of a prize, the breeders should be condemned to a penalty. The panting breathlessness, from the congested lungs

and weakened heart; the dull, stupid expression, from the congested brain; the inability to move; are positively disgraceful to agriculturists, and should certainly attract the attention of the Society for the Prevention of Cruelty to Animals.—*Medical Times and Gazette.*

DR. RIGBY has published in the *Times* a letter to the Earl of Galloway, President of the General Lying-in Hospital, setting forth his reasons for resigning the office of physician to that institution. The facts of the case, as we gather them from this letter, are, that Dr. Rigby has for nearly twenty years been attempting to have Dr. Reid's system of ventilation introduced into the hospital; that when he was successful in having the plan properly carried out, the mortality was greatly reduced; that on the stopping the ventilation, or rendering the apparatus useless, the mortality greatly increased; that, in consequence of a recurrence of puerperal fever last summer, Dr. Rigby requested Dr. Odling, Medical Officer of Health for Lambeth, to inspect the hospital; that he received the censure of the hospital committee for so doing; and that he has resigned in disgust. If the figures given be correct, they certainly show immensely in favour of the benefits of ventilation, as will be seen from the following summary:

Date.	State of Hospital.	Deliveries.	Deaths per 1000
January 1837 to August 1841.	No ventilation	802	61 76·06
April 1842 to ..	Apparatus wiffully rendered useless	309	19 90·90
March 1843	Ventilation carried out	1661	8 4·61
April 1843 to ..	ried out	1661	8 4·61
April 1850 to ..	No ventilation	1166	80 26·0
May 1855	No ventilation	1166	80 26·0

—*British Medical Journal.*

DEATH.

On the 30th November last, brutally murdered within twenty miles of Jubulpore Station, Presidency of Bengal, Doctor THOMAS MOORE, late 63rd N.L., aged 37 years, fifth son of the late George Moore, Esq., of this city.

On the 19th January, WILLIAM WILSON CAMPBELL, M.D., J.P., at his residence, the Castle, Portstewart, after a short illness.

On January 9th, aged 46, M. Legendre, Physician to the Hôpital Ste. Eugénie, Paris.

COMMUNICATIONS RECEIVED

From Professor Smith; Mr. Hamilton; Dr. Hutton; Dr. Brier; Dr. Drennan (we shall endeavour to carry out your wishes); Mr. Tufnell; Dr. Quinlan; Dr. Thorp; Dr. McClintock; Dr. Richardson; Dr. Corrigan; Dr. Ledwich; Dr. Banks.

PUBLICATIONS RECEIVED.

Lectures on Diseases of the Stomach and Indigestion. By Cathcart Lees, M.B. T.C.D. Dublin: Fannin & Co. London: Longman & Co.

Midland Quarterly Journal of Medical Sciences.

On Peptone. By M. Boudault. Translated by W. S. Squire, M.D. London: Churchill.

Controversy on the Artificial Tympanum. By James Yearley, M.D.

ERRATA.

Page 28, second column, line 28, for *flesh* read *black*.

line 45, for *constitution* read *constriction*.

line 50, for *strichures* read *strutures*.

line 61, for *slr* grains read *a grain and half*.

Page 29, first column, line 3, for *ulcerations* read *ulceration*.

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**Richmond, Whitworth and Hard-
wicke Hospitals.**

CLINICAL LECTURE

By Dr. CORRIGAN,

Physician in Ordinary to the Queen in Ireland, &c. &c.

**I. Endocarditis.—II. Cyanosis in a Girl *et. 11*—
*Diagnostic sign afforded by position—Post-
mortem appearances.—Cyanosis Intermittent,
explanation of.***

The first case I desire to lay before you is Endocarditis in a very recent stage. The opportunities for observing it in this stage are not frequent, and it is therefore the more deserving of your careful inspection. The patient, a woman about 35 years of age, was admitted into the Whitworth Hospital on the 21st December, apparently in a dying state, ill of sub-acute peritonitis, which had passed into the stage of effusion. As is usual in such cases, she had frequent alternations of rally and sinking, with frequent attacks of inflammatory action about liver, or right and left lung; and, finally, on the night of the 6th January, was suddenly seized with an attack of angina, referable to endocarditis. At the morning visit she was better than she had been, but still in great distress; her breathing was rapid, her countenance very pale, and forehead bedewed with cold perspiration; while her countenance was expressive of great anxiety, and the *alae nasi* dilated with a laboured action, keeping time with each inspiration. She referred her distress to some undefined portion of the sternal region. There was no increased dulness on percussion over the *præcordial* region, and there was a churning mixture of undefined murmurs, mixed with an obscure bruit, impossible to describe. These were further confused by a crepitating rattle which had existed for some days previously in the *infra-clavicular* space of same side. That there was not effusion, of large amount at least, into the pericardium, was evident from the absence of any extent of dulness over the *præ-*

cordial region; and that there was no extensive deposit of lymph was equally manifest from the absence of circumscribed *frottement*. There was a diffused and weak *frottement* audible, but this may be heard where plastic pleuritis exists in the neighbourhood of the heart, from the action of this organ upon the lymph effused upon the pleura, and must not be confounded with the distinctly-marked and circumscribed *frottement* belonging to pericarditis. We had the positive signs of angina—the acute onset, sense of suffocation, oppressed breathing, and dilated working of the *alae nasi*, and tumultuous action of heart, which equally belong to pericarditis and endocarditis; but we had not the positive signs that indicate pericarditis—viz., either increased dulness on percussion, or circumscribed *frottement*, and therefore the diagnosis was endocarditis. She lived for six days. The amount of endocarditis would not have, of itself, proved fatal, but, added to an accumulation of extensive disease, it sufficed to kill. The abdomen was a mass of disease, the peritoneum, particularly behind the liver, and in the right iliac fossa, containing two or three pints of pus, the intestines glued together, and the peritoneal convex surface of liver covered with a pasty, unhealthy lymph. In all these products, with an enlarged nutmeg liver, we only see the ordinary effects of neglected unhealthy inflammatory action in a broken-up constitution, for the patient was of intemperate habits; but the case, from these very circumstances, has afforded us what you might otherwise have, perhaps, not an opportunity of seeing—endocarditis of six days' standing, and limited in its locality. The heart and its membranes generally are healthy, but on the aortic valves there are three beads or cords of lymph, about as thick and as projecting as a fine crow-quill, on the ventricular surface of the valves. These bead-like projections followed the line of the fibrous portions of the valves, for on each valve they formed two semi-circles, the points of which met at the *corpora aurantia*, in the centre of the valve, and then swept round by its edge; not along the free edge of the valve, but following the line where the purely se-

rous fold of membrane is superadded upon the fibro-serous foundation of each valve. There is thus, in fact, a continuous cord of lymph round all the valves, but which may be considered as composed of six semicircular cords of lymph, two to each valve. When examined with a powerful glass, the cord of lymph is deeply red, and firm at its base, while its projecting edge is irregular, and apparently gelatinous. This case presents us, then, with an opportunity we seldom have, of observing recent endocarditis; and I attach value to it, not only on this account, but because it supports a view I never lose an opportunity of impressing on you, that a vast majority of cases of valvular diseases of the heart, particularly in the young and middle-aged, have their commencement in inflammatory action and deposition of lymph; that the lymph is shed as it is on any other serous membrane, the peritoneum or pleura; that if not treated as such, it is not absorbed, but becomes organized; then takes on a contractile action; and finally narrows, by this contractile action, the auriculo-ventricular opening, or tightens up the aortic valves against the walls of the aorta, and thus eventuates in organic disease; and that if this view be taken of it, and steadily kept in view, with patience and proper treatment, its absorption, like lymph or any other serous surface, will be effected.

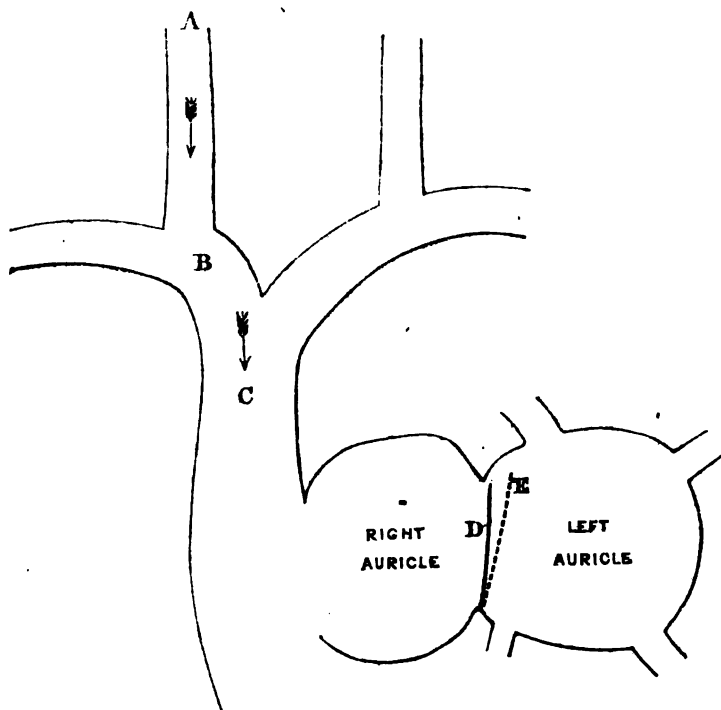
We have next a case of Cyanosis, the opportunities of examining which are rare. The case, a girl, A. S., æt. 11, was admitted into the Hardwicke Hospital on the 22nd December, in a very enfeebled and hopeless state of disease of the brain, with pupils dilated, and insensible to light. I will not notice farther the head affection, but direct your attention to the symptoms connected with the state of the heart. The first remarkable appearance was that of the fingers and toes, particularly of the thumbs and great toes. You are all familiar with the appearance which the extremities of the fingers often present in phthisis—the ends of the fingers incurvated and somewhat enlarged; but the ends of the fingers and toes in this child were clubbed and flattened—the fingers and toes, but especially the great toes and thumbs, flattened out to a most exaggerated degree, and the joints immediately behind the flattened phalanges constricted, as if a string had been tightly tied round each; so that the thumb and great toe respectively much resembled the extremities of the mandible of the bird called the spoonbill. This peculiar formation of the extremities has long been observed in connexion with congenital disease of the heart, and therefore attracted attention to this organ. But a still more striking symptom presented itself in the face and hands; the lips and cheeks looked peculiarly blue, not swollen, but as if the parts had been changed in colour; the hands were purplish, and the parts of the face naturally high-coloured, cheeks and lips, showed the bluish tinge more decidedly. On examining the heart, no mor-

bid sound could be detected, nor any increase of dulness. While raising the child into a semi-erect posture, to ascertain the state of the lungs posteriorly, a very remarkable change was observed. On the child being kept for a little in the sitting or semi-erect position, the blue of face and lips increased in intensity; and on restoring her to the recumbent position, the colour diminished to its prior hue. This observation was tested several times, and always with the same result. I marked this at the time as an additional sign for considering the case cyanosis, although not probably of any great degree, and I shall give you the explanation presently. The history of the case, as the child's mother gives it, is, that about four years ago her attention began to be drawn to the child's bluish tinge of face, and to the shape of the fingers, but that she was an intelligent child until some weeks since, when, after a severe wetting and a fall from a height, the head symptoms began to show themselves. She died comatose on the 2nd January, having been eleven days in hospital.

On *post-mortem* examination, the brain was found in a state of white ramollissement, and the lungs had scattered tubercles through them, some isolated and others in masses. The heart was of natural size, and in the foramen ovale was an opening between the two auricles, large enough to admit a No. 8 catheter, but covered by the valve of the foramen ovale in the left auricle lying over it. In this case, as long as the circulation was quite unimpeded, the blood passing freely and equally into both auricles, and the two auricles acting together in contraction, it is probable that no blood whatever passed through the opening from the right auricle into the left; but when the pulmonic circulation became impeded by tubercular deposition, and its usual concomitants of congestion, the blood did not pass as freely through the lungs as before, and therefore not as equally into the left auricle as into the right; and then the balance of pressure being with the mass of blood in the right auricle, forced the valve, and passed some of the venous blood into the left auricle, which then mixed with the blood of the left heart, and produced the cyanotic appearance in the patient. I have already alluded to the singular increase of intensity of blue colour produced by placing the child in the erect sitting posture, and to my venturing to consider it as an additional diagnostic sign of cyanosis, or communication between right and left auricle. My reasons for considering it so are these:—The circulation of the blood is influenced by two forces—the ordinary contractility of the heart and vessels, and gravity. In the recumbent posture, in this child, the circulation was under the influence of the ordinary contractility alone, whether passing from the general circulation into the right auricle, or from the pulmonic into the left auricle; but when the child was placed in the semi-erect posture, an additional power—*vis.*, that of gravitation and hydrostatic pressure—came into

action on the contents of the right auricle; for then there was not only the ordinary contractility of the vascular system propelling the blood into the right auricle, but a column of blood in the internal jugular vein, brachio-cephalic, and descending vena cava, extending in an unimpeded vertical column from the foramen lacerum to the auricle, brought its weight to bear upon the contents

of the right auricle, and thus pressed against the valve of the foramen ovale, and in the erect posture necessarily forced a portion of the venous blood into the left auricle, mixed it with the systemic circulation, and thus caused the increase of blue colour in the erect posture. The annexed diagram will still more clearly explain my meaning.



A, the internal jugular vein, and B, brachio cephalic, terminate in C, the descending vena cava. In the recumbent position the weight of this column of blood in the internal jugular and cava will have no influence; and the valve of the foramen ovale, equally pressed upon on both sides by the mass of blood in the two auricles, will lie in its natural position in the line D, and no blood will pass through, even though, as frequently happens, there is an opening in the valve; but when the erect position is assumed, there then comes into action the column of blood in the internal jugular, brachio-cephalic, and cava; and this superadded force is sufficient to press the valve somewhat into the left auricle, as represented by the dotted line E, which will allow a stream of venous blood to pass across into the left auricle, and by this admixture of dark blood, thus increase the blue colour in the erect posture.

I offer this explanation with some hesitation. Cases of cyanosis are rare, and great obscurity still hangs round them; but as the *post-mortem* examination has seemed to confirm the diagnosis, the facts and reasoning on them may be worth placing on record.

Some few general observations on cyanosis may

naturally occur here. There is no doubt that cases of open foramen ovale to some extent, and even of communication between the ventricles, have occurred, in which there was no evidence whatever of there having been cyanosis during life; and hence some have argued that cyanosis does not depend on admixture of venous blood with arterial, but is the result of congestion and obstructed pulmonic circulation, just as we see blue lips in mucous catarrh. There is an error in the reasoning, for it is assumed that there must be admixture wherever the communication between the two sides of the heart exists; but that inference is not warranted. Suppose the two hearts—for the right and left ventricles are really two distinct hearts—lying side by side, and without any communication between their cavities, no blood will, of course, pass from one cavity into the other. But go farther than this, and suppose them contracting equally, and their cavities equally full; even though there be an opening in the septum between them, neither will there be any admixture; for the fluid in each will press equally against the fluid in the other, and there can be no admixture. Thus the mere existence of a communication between the two auricles, or between the two ven-

tricles, does not prove that admixture of the two kinds of blood has taken place. If, however, circumstances, such as in the case before us, occur to throw the balance of pressure on the side of the right auricle, then the venous blood will pass into the left auricle, and cyanosis will result. If the views here put forward should prove to be correct, they will explain what at first sight might otherwise be puzzling—namely, that cyanosis, depending on a permanent organic vice of conformation, may nevertheless be an intermittent phenomenon.

I was preparing these observations on the existence of communication not necessarily entailing admixture of blood, under the impression that they originated with myself, when, on looking over some writings on the subject, I find that they have already been put forward by Jules Cloquet, and so well, that I shall quote them for you. He says—“If the two auricles or the two ventricles of the heart contract equally, the two contained masses of blood, red and black, meet with equal force at the line of the opening, and being equally balanced, have no tendency to pass out of their respective cavities: no mixture takes place; but if the equal balance be destroyed, if one of the cavities contract with greater force than the other, the blood will then pass into the other cavity, and the mixture will take place.”

With regard to the opinion that cyanosis is explicable on mere congestion, the opinion is not, I think, at all tenable. The blue colour is not connected with any turgescence of the capillaries, such as we see in valvular contraction or in catarrh; and if congestion had any share in its production, it should have been more marked in the recumbent position than in the erect posture. But in the case before us, the erect posture, which diminished congestion, increased cyanosis; thus satisfactorily establishing that there was no connexion between them.

CASE OF ANEURISM OF THE LEFT SUBCLAVIAN ARTERY, OF UNUSUAL MAGNITUDE.

By JOHN HAMILTON,

Surgeon to the Richmond Hospital.

Thomas Cage, *æt.* 50, a labourer, a strong-looking man, admitted into the Richmond Hospital, August 13, 1857, with a large aneurism of the left subclavian artery. Ten months previously he observed a tumor, little larger than a pea, under the middle of the left collar-bone; it was fixed, but beat like a pulse, and was discovered by accident, no uneasy sensation having preceded it. There was a slow increase for about four months, but in March last a sudden enlargement took place. He worked on, however, for a month, when the tumor became so enlarged and so painful, that further labour was impossible. It continued pretty stationary, he thinks, till the last

fortnight, since when it has considerably increased. He went into Jarvis-street Hospital in April, and remained till July, under the care of Mr. Stapleton. At present there is a large tumor in the left subclavian region, extending from the inner fourth of the clavicle to the border of the axilla, eight and a half inches long, by seven inches broad. It can be felt above the centre of the clavicle. The aneurism has rather a solid feel, but pulsation is observable throughout, strong and distinct, but as if the walls were thickened from deposit. The colour of the integuments natural; a few veins going over the surface. The clavicle is pushed forward. He suffers much pain in the tumor, and down the arm—a burning pain, with a sensation of “pins and needles” in the hand. There is no *œdema* in the arm or hand, but when he was under the care of Mr. Stapleton, in Jarvis-street Hospital, there was very great *œdematous* swelling of the whole arm and hand; but under the judicious treatment of Mr. Stapleton it entirely disappeared, at the same time that the tumor became quite solid; so that Mr. Stapleton believed a cure to have taken place; but from some imprudent efforts on the patient's part, pulsation returned, and a further diffusion of the aneurism ensued, soon after which he left the hospital. The treatment which had effected so much was the application of ice to the tumor, and a pad and *presse-artère* on the distal side of the artery, high up in the arm. With the exception of a slight cough, he appears otherwise healthy. He had syphilis twenty years ago, and took mercury.

Four days after admission there was a visible increase in the size of the tumor, perhaps to the extent of one-fourth, in the direction of the axilla, up above the clavicle, and forwards over the edge of the scalenus muscle; it was also more prominent, more fluctuating, and pulsed strongly, as if the walls had been stretched thinner. No *bruit de soufflet* was audible, but there was a spurious one caused by the pressure of the stethoscope against the tragus of the ear, as the aneurism lifted up the instrument at each pulsation.

After a careful consideration of the case, I came to the unwilling conclusion, that it was not within the reach of operation. From the prominence and extent of the tumor above the centre of the clavicle, the subclavian artery could not be taken up in its third stage; from the aneurism overlapping the scalenus muscle, it could not be reached in its second stage; and though the artery has been tied in the first division of its course, by the late Mr. Colles, Liston, Partridge, Hayden, and others, it was with invariably a fatal result.* On the left side the artery has never been attempted,† surgeons having been deterred by the great depth of

* A Treatise on the Structure, Diseases, and Injuries of the Blood-vessels, by Edward Crisp, p. 211.

† Mr. Stapleton has since informed me that a surgeon in New York did tie the vessel in its first stage, but the patient died a few hours after.

its position in the neck, and the important parts that are in close connexion with it, some of which must be inevitably injured. A consultation of my colleagues, assisted by the eminent skill and experience of Sir Philip Crampton, agreed in this conclusion.

The chance now only remained to the poor man of a natural cure. A few instances of this have occurred, and certainly the aneurism of the subclavian artery offers the best position for this result; for as the aneurismal tumor rises up between the clavicle and the artery, it must press the latter against the spine, affording a chance of cure by compression. Three weeks afterwards I hoped that this desirable termination was at hand. Till that time the tumor increased most alarmingly; the pulsation stronger, the fluidity of its contents more apparent, and the walls very thin; all this attended by great pain at the lower edge of the pectoral muscle, as if the parts were being torn up in this situation, shooting out to the scapular region behind, to the axilla, and down the arm, which became swollen and oedematous. At the end of this time a remarkable change took place: the tumor became solid, and all pulsation ceased in it; the pulse at the wrist was imperceptible. This

favourable condition lasted for three days, and I fancied that the aneurism had become smaller. That night the man awoke with a peculiar sensation, as if something had given way, and a hot fluid was running through the swelling, and down the axilla and arm. I had little doubt that this arose from the clot which had formed at the opening into the aneurismal sac having given way, and the "hot fluid" was the blood again flowing into the sac; and on examination of the tumor, pulsation had returned, and it had considerably increased in size. After this there were several attempts at the consolidation of the blood in the aneurism, which, however became larger and larger, increasing in every direction, but particularly behind, raising up the scapula, causing decubitus to be very painful. At one time, at the upper part, it assumed a dusky red hue, and was soft and very fluctuating, suppuration being apparently about to take place. In a few days, though the redness continued to a certain extent, the part became solid and hard again.

At the time of his death, the 30th October, the aneurism had attained the excessive magnitude of which the accompanying outline sketch, taken from the cast, may convey some idea. Consider-



ably over the clavicle above, as far as the sternum on the inside, below a hand's-breadth beneath the nipple. In consequence of the clavicle having been absorbed and divided in the middle, the impediment which that bone offered to lateral displacement was removed, and the tumor displaced the shoulder far outwards, so as to give the sketch the appearance of being out of drawing. Behind, it

went round nearly to the spine, under the scapula, which was considerably elevated. There was no pulsation, which I attribute to the enormous cavity of the aneurism, its varying contents, partly fluid, partly solid, the absence of a well-defined sac, diffusion into the surrounding tissues obviously having taken place, and the very slow entrance of the blood into the aneurism. From this absence

of pulsation, the size and appearance of the tumor, its uneven, nodulated surface—in some parts solid, in others soft and elastic or fluctuating—the patches of dusky redness, the many large veins observable over it, the pale, sallow, haggard look of the patient—any one seeing this case for the first time, without acquaintance with its previous history, must have taken it for an unusually large malignant fungoid tumor. This on several occasions actually took place. Dr. Crisp, in his learned and valuable work, mentions a case of this kind, the preparation of which is in the Museum of St. Thomas's Hospital, where a large aneurism of the left subclavian artery "suggested the existence of a fungoid tumor." In the present case, in proportion as the aneurism increased, the powers of life failed. He got weaker every day, and fell into deep despondency. He suffered much distress from the enormous oedematous swelling of the arm, which was relieved by acupuncture. At length gangrenous patches appeared on the back of the hand, extending in narrow, irregular patches up to the axilla; before this had made further progress, he rapidly sank and died.

The following is a brief description of the state of the parts, which were exhibited at the Pathological Society. The sac was of enormous size, and very irregular, formed in front by the great pectoral muscle, which was tightly stretched over it, and considerably thinned; it formed the anterior wall of the aneurism, and must have opposed strong resistance to its increase in that direction, and forced it upwards and backwards. The clavicle was in the cavity of the sac, absorbed at its middle, with a considerable interval between the sharp, irregular, divided extremities of the bone, the outer portion having been carried forcibly outwards with the scapula. Behind, the scapula, subscapular muscle, and latissimus dorsi, formed the chief boundary, but four of the ribs in this situation had been absorbed, and the aneurism encroached on the cavity of the thorax. Such strong adhesion existed between the sac and the posterior part of the lung, that a portion of the latter had to be removed in taking away the sac; but the lung was healthy, and no trace of disease discoverable in any other organ.

It would be impossible to say what was the amount of the contents of this large aneurism; they were partly fluid blood, partly solid; some of the latter dark, and evidently of recent formation; others of long standing, pale, buffish-red, and apparently organized. The subclavian artery, from the aorta to the aneurism, was about the normal size, but the coats thinner than usual; it was flattened and compressed as it neared the sac, and a probe passed in could not be made to enter the sac, a firm obstruction precluding its progress. Water thrown into the artery by a syringe, flowed into the aneurism almost imperceptibly. Just at the outer edge of the scalenus muscle the artery was lost in the aneurismal tumor.

ON ALTERNATION OF GENERATIONS AND PARTHENO-GENESIS.

By EDWIN LANKESTER, M.D., F.R.S., &c.

In bringing this subject before the public I have two objects in view:—first, the introduction of a new nomenclature for the products of the reproductive and generative forces; and secondly, to offer some observations on the curious facts involved in the Alternation of Generations of Steenstrup, and the Parthenogenesis of Owen.

As an illustration of the general theory, I will instance the Entozoa, as the family of animals with which medical men have most to do. The history of the entozoa has ever been supposed to involve some of the most interesting questions relative to the generation and reproduction of organic beings. Although it was easy to account for the presence of worms in the stomach and intestines, by the ready explanation of the swallowing of the eggs, a difficulty always presented itself in the case of those creatures called hydatids, which evidently had an independent animal existence. They exhibited no sexes, they produced no eggs; and the readiest theory was, that of spontaneous or equivocal generation. Even as this theory was successively driven from every other part of the animal and vegetable kingdoms, it found a refuge in the strange and paradoxical creatures embedded in the tissues of man and other animals, far removed from any external influences. The time has, however, at length arrived, when it can be demonstrated that the cystic worm is no longer to be regarded as the result of a "fortuitous concurrence of atoms," but that it is the offspring of the tapeworm, undergoing one stage of its growth, through which it must pass before it can attain to the more dignified development of its parent. From this point of view we may compare the cystic worm to the caterpillar or chrysalis stage in the development of the insect. It differs, however, in this—that in many cases the cystic worm has the power of developing, at this stage of its growth, a large number of creatures resembling itself; and these have, each of them, the power of developing themselves into tapeworms, as though the caterpillar had the power of producing in its interior any number of young caterpillars, each of which would grow into a perfect butterfly. The history of the entozoa is an illustration of Steenstrup's theory of the alternation of generations. The cystic worm—let it be an echinococcus—has originated from the egg of a tapeworm, the embryo of which has found its way from the stomach and intestines through their walls, into the tissues of the body. This worm consists of a vesicle or bag, to which is attached a head, called the *scolex*. In *Cysticercus cellulosae* the hydatid of the pig, there is but one scolex, but in echinococcus there are many scolices. Now, this scolex—or scolex-head, as it is sometimes called—is the stock or germ, the head from which

All the segments of a tapeworm proceed. The cyst of echinococcus has, then, the power of producing a large number of these heads, each of which may grow into a tapeworm. The cyst, the original cyst of the worm, is, in the language of Steenstrup, "a nurse." Küchenmeister and the Germans call it a mother-cyst. But this cyst will not only produce scolex-heads, but other cysts like itself. These are daughter-cysts, and these secondary cysts will also produce scolex-heads. They are also "nurses," and in virtue of their existence the mother-cyst becomes, in the language of Steenstrup, a "parent nurse." The second cyst may contain, as it frequently does in the *Echinococcus Altricipariens* of Küchenmeister, a third cyst, a "grand-daughter" cyst, which is also a "nurse;" and thus on. Another curious point about all these creatures is, that they are sexless. Neither cyst nor scolex-head has any sex; nor do they acquire sexuality as long as they remain in the flesh in the hydatid condition. It is to this condition of the worm that Professor Huxley proposes to apply the term "agamozyoid." The objection to this term is, that it is equally applicable to all sexless forms of reproduction amongst animals, as to those to which Steenstrup has applied the term "nurses." In order to acquire the conditions necessary to the development of sexual organs, the cystic or asexual form of the worm must be swallowed and digested by another animal. The scolex-head then becomes in its turn truly a "nurse," and this of a most prolific kind; for the cyst below being displaced, the numerous segments (*proglottides*, as they have been called by Van Beneden) begin to make their appearance. The conditions are now such that sexes appear. Each segment is merely a capsule containing a male and female generative apparatus, and nothing else. Eggs, the result of the union of the sperm-cells and germ-cells, are now produced in myriads. These pass into the external world, and being swallowed and digested by other animals, set free the embryos, which again become cystic worms, as above described. Now, these phenomena are not peculiar to entozoa. Steenstrup pointed out that they had been observed in the medusæ, the claviform polypes, the salpæ, and the trematode entozoa. Professor Owen, in the exposition of his views on parthenogenesis—a general term he applied to the phenomena of asexual reproduction—has also given a large number of cases of the same kind. One of the forms examined by Professor Owen in his work is peculiarly interesting, on account of its occurring in a family where such phenomena are highly exceptional. This case was first pointed out by Bonnet, and was the production of young aphides for several successive generations, without any union of the sexes. The virgin aphides, however, thus producing viviparous young, were not true females. These eventually appear, and after impregnation by the male, produce eggs, from which the virgin generation proceeds. These virgin aphides are truly "nurses," accord-

ing to Steenstrup's theory. But a further development of this strange history remains. Not only have we the lower animals in their various stages of development, capable of producing buds, or individuals like themselves, without sexual union, and embryo bearing eggs, but we have also amongst the *Articulata*, both in the *Crustacea* and *Insecta*, females producing eggs, which proceed to the development of perfect animals, without any sexual intercourse, or union of sperm-cells and germ-cells. Such a phenomenon is so opposed to the universally accepted dogma of the necessity of sexual intercourse for the development of the embryo, amongst the higher animals, that many physiologists of the present day have not hesitated to express their unqualified dissent. Regarding, however, the phenomena of reproduction from the point of view afforded us by the Entozoa, and other forms of lower animals, we must receive the facts in both cases equally cautiously, and judge according to the evidence. Von Siebold, in his work on True Parthenogenesis, affords good evidence for believing that the queen-bee deposits two kinds of eggs, the one of which has come under the influence of the sperm-cells of the male, and the other not. A very curious point in this history is the fact, that whilst both eggs produce young bees, the impregnated eggs produce worker or female bees, whilst the unimpregnated eggs produce male or drone bees. In a recent communication read to the Royal Society, Mr. Lubbock has shown that species of the Entomostracous crustacean genus *Daphnia*, produce living young, in all respects like their parent, without any sexual intercourse. It would appear, then, that up as high as the most developed forms of articulate animals, we have evidence that there is no real difference between the functions of reproduction and generation. If we turn now to the vegetable kingdom, we find perfectly analogous phenomena presenting themselves. In fact the modifications of the reproductive function, which have recently excited so much surprise in the animal kingdom, are the normal forms of the function among plants. In the roots and branches of a tree we have a gigantic "nurse," and the buds are its progeny. Just as we find the same secondary products called "gemmæ" in animals either remaining adherent to their parent stocks, as in the sertularian and other zoophytes, or floating off, as in hydra and many others, so we find the buds of plants remaining attached to the tree, or becoming separated from it. Just, too, as we find a different form assumed by the secondary offspring of the "nurse," as in the scolex-head of the cystic worm, so we find, in such cases as those presented by the "bulbillus," the "bulb," and the "sporule," different forms assumed by parts having the same relations in the plant as in the animal. So, likewise, in the plant we find a greater change of the offspring taking place when sexes are developed and flowers are produced; and the hermaphrodite flower, with its stamens and

pistils, is the representative of the segments (proglottides) of the tapeworm, with its male and female apparatus in a common envelope. We may go yet further with our analogies in the vegetable kingdom. Here, also, we have numerous cases in which the germ-cell, the ovule, is produced, and develops within itself an embryo, quite independent of the influence of the sperm-cell—the pollen. The cases seem to me to have a strict analogy; and no more simple way could be found of mastering the details of the reproductive phenomena of animals, than by studying those in plants. The occurrence of seeds, independent of stamens, was first observed in a euphorbiaceous plant in the gardens at Kew. It has been subsequently observed in the following orders:—*Characeæ*, by A. Braun; in *Cannabineæ*, by M. Naudin; in *Chenopodiaceæ*, by Le Cocq; in *Anacardiaceæ*, by Peurre and Bocconi; in *Cucurbitaceæ*, by Naudin; in *Datisceæ*, by Fresenius.

GENESIS.

GROWTH—REPRODUCTION—GENERATION.

HOMOGENESIS. (Reproductive force acting through similar cells.)	HETEROGENESIS. (Reproductive force acting through dissimilar cells, sperm-cells, and germ-cells.)
It is represented in—	It is represented in
A. Plants, by Phytoids.	A.—Plants, by—
1. Isophytoids, Buds.	1. Gynophytoids, Female flowers, Pistillidia, &c.
2. Allophytoids, Bulbills, Bulbs, Sporules, &c.	2. Androphytoids, Male flowers, Antheridia, &c.
B.—Animals, by Zooids.	3. Androgynophytoids, Hermaphrodite flowers.
1. Isozooids, Gems or Buds.	B.—In Animals—
2. Allozooids, "Nurses" (Steenstrup) "Agamozooids" (Huxley) "Virgin Aphides" (Owen) "Agamic Eggs" (Lubbock) "Drone Bees" (Siebold)	1. Gynozooids, Females. 2. Androzooids, Males. 3. Androgynozooids, Hermaphrodites.

ON THE

USE OF THE COMPRESSED AIR-BATH.

By EDWARD HAUGHTON, M.D.

The treatment of thoracic diseases by the inhalation of compressed air, has been known for about 20 years in France, and works have been published on the subject by Bertin of Montpellier, and Pravaz of Lyons, but it has only been very lately introduced into this country, owing, perhaps, to the costliness of the apparatus. Only one has been built in England, at Ben Rhydding, in Yorkshire, at an expense of £6,000, and where a good deal of success has been claimed in the treatment of asthma and chronic bronchitis. A Dublin

medical student has been there for some time, suffering from the former affection, and declares himself much benefitted. It is singular that mechanical pressure should prove beneficial in a disease where the pathological condition most usually observed is dilatation of the air vesicles, or inter-vesicular spaces.

The following is a short account of the effect of a bath of "compressed air," which I experimented with at Lyons, when in that city. My attention was first drawn to the subject by Sir Joseph Olliffe, (Physician to the British Embassy, Paris,) who handed me one of Milliet's pamphlets on its medical use, and accordingly I made a point of calling there, *en route* for Constantinople. A steam-engine of six-horse power is employed for filling the iron bells or "cloches," as they call them, and the pressure sustained is measured by a column of mercury graduated with accuracy, and of which 76 centimetres equal that of one atmosphere, or 16 lbs. on the square inch, the ordinary pressure of the air. The cases in which this remedy is most successful are stated to be asthmatic and phthisical ones, and in general, those in which the vital capacity or inhaling power is diminished; but as I have no experience of its medical virtues, I shall only speak of that which I know, viz., its physiological effects, as evidenced by the state of the pulse and sensations generally. I noted them down at the time with great care, as I sat in the compressed air chamber, viz.:—

TIME OCCUPIED.	PRESSURE ENDURED.	SENSATIONS EXPERIENCED.
First 15 minutes	7 centimetres	Slight fulness in the head and pressure on ears, with slight stupefaction. Pulse 76 per minute.
N. B.—Medical application seldom so high pressure as this.	15 centimetres	{ Pulse 86 per minute. Pulse 82 Sensation lighter.
20 minutes ..	20 " ..	Pulse 81; cooling gradually; sensation warmer.
25 " ..	25 " ..	Skin slightly moist; pleasant warmth.
26 " ..	26 " ..	Pulse 78; pressure* one-third of an atmosphere.
43 " ..	" " ..	Pulse 80, sensation lighter; skin cool.
50 " ..	30 " ..	Pulse 88.
55 " ..	45 " ..	Pulse 78; deafness; some pain in ears, and sense of fulness in head.
1 hour	50 " ..	Pulse 84.
70 minutes ..	Pressure diminishing	Pulse 80; felt very cold; and put on great coat.
75 " ..	Do. ..	Pulse 77; colder still; put on hat; ears relieved.
" " ..	30 centimetres	Pulse 80; sudden cessation of pressure.
" " ..	22 " ..	Very cold; exit; one minute after, pulse 84.
80 " ..	Cessation; vapour liberated from air.	

* Highest pressure, two-thirds of atmosphere.

The pressure I endured was by my own request, and tasked the full powers of the engine, as a small quantity of air was continually escaping, to keep the contained atmosphere pure. At another establishment, which I subsequently vi

sited, they would not believe that I had endured so much, as for medical purposes the pressure is always small, and frequently repeated. Believing that a knowledge of the physiological effects of a remedy is both a guide to the physician and a safeguard against imposition, I have carefully noted the above facts, which may perhaps prove acceptable to the profession.

ON A NEW MODE OF TREATING STRUMOUS ABSCESSSES.

By Dr. GRAVES, Cookstown.

He must be a bold man who, in these days of science and of progress, claims for himself the discovery of a new method of treatment. At the risk, however, of being, perhaps, considered egotistical, I am induced to publish a plan which I am satisfied has, in my own practice, proved useful, and to which I have been unable to find any reference in the books at my command; nor have any of the medical friends with whom I have discussed the subject been more successful than myself.

All surgeons are familiar with the class of cases to which I would draw attention, and few but have heartily wished them removed from their care. I allude to subcutaneous abscess, occurring in patients of a strumous diathesis, chiefly met with in the superficial cervical glands—tedious and insidious in their course, and generally, after months of suffering, ending at the best in elevated cicatrices, with wheals and scars; under the most careful and judicious treatment bringing unmerited discredit on the practitioner, and disgust to the patient.

I have had recourse to various expedients—free incisions, valvular openings, poultices, and spontaneous evacuation, with a like uncertain result; some, presenting the worst appearance, healing without trouble, while others, in every respect hopeful, have baffled all my exertions for months.

Several such were, in dispensary and private practice, under my care during the past year; and seeing that iodine, cod-liver oil, iron, &c., &c., applied externally and internally (administered with, when it could be obtained, a generous diet, warm clothing, &c., &c.), produced little benefit, I determined to try the effect of a counter-inflammation; and observing that a thickening and adhesive process followed vaccination, it occurred to me, that if this was satisfactorily established in one of these abscesses, the sac would probably be obliterated without much difficulty.

We all know that, in secondary vaccination, a pustule is produced by the introduction of the virus, after the lapse of a definite number of days; and though the result may not prove a true vaccine pustule, still the inflammation will, in the majority of instances, possess a specific character. Be the result successful or otherwise, I will feel

deeply obliged to any gentleman who will kindly furnish me with the particulars of any cases which he may determine to treat on this principle.

In January, 1857, A. B., a mill-worker, æt. 14, of strumous habit, applied at the Cookstown Dispensary, suffering from an abscess of the cervical glands on the right side of the neck, about the size of a nutmeg. The skin was but slightly discoloured, but fluctuation evident. I gave exit, by a free incision at the lowest part, to a small quantity of matter; then charging my lancet with cow-pock infection, introduced it in the usual way, by a few slight scratches at either side of the wound, taking care that it should come as little as possible in contact with the discharge from the wound. On the eighth day it had evidently "taken" well; there was the well-marked inflammation surrounding the vesicles. "On the ninth," as Maunsell and Evanson describe it, "there was formed round the base an inflamed ring, with an areola of an inch and a half or two inches in diameter." In this case the redness was more extensive. On the *twelfth* there was considerable inflammation and hardness all over the surface of the tumor, and very little discharge from the original opening. On the *sixteenth* this had in a great measure disappeared; and when, in about three weeks afterwards, the girl called upon me, the crust had dropped off, there was no trace of the abscess, and very little more scar than is left after an ordinary vaccination. I should mention that this patient had not been previously vaccinated.

In March, E. M., æt. 21, a person in comfortable circumstances, consulted me. The history and progress of this case is so similar to that just related, that I need not enter into particulars. The result was alike satisfactory.

September.—In the third case, that of C. R. æt. 16, in not good health, there were some circumstances that may require notice. She had a tumor on the left side of the neck, about the size of a horse-bean, very red—bluish red—and evidently about to break. Altogether this appeared an unfavourable subject. For some time I hesitated as to the expediency of treating her in a similar manner. The two former cases had given me confidence, and I determined to risk the experiment. Matters went on well till the *ninth* day, when a considerable amount of inflammatory action had set in. From the wound escaped an unhealthy ichorous discharge. I administered an aperient, and ordered quiet, but on the second day after, the *eleventh* from vaccination, there was well-marked erysipelas of the neck and side of face, but, as first observed, I think by the late Dr. Graves, limited by the median line. A linseed meal poultice was ordered, salines and diaphoretics given, and within a week the girl was walking about.

In this instance I cannot say what was the effect of the vaccine inflammation "*per se*," inasmuch as it was complicated with the erysipelas—

it is not easy, among pauper patients, to obtain accurate accounts; but this I do know, that at the end of four weeks the abscess was obliterated with very trifling deformity.

Proceedings of Societies.

PATHOLOGICAL SOCIETY OF DUBLIN.

January 16th, 1858.

Deformity of Face from Lupus Exedens.

Dr. BANKS exhibited a cast taken from the face of a man who had been recently under his observation. The man was 64 years of age at the period of his death, which took place soon after his admission into hospital. He presented a deplorable spectacle, having attained an extreme degree of marasmus, and his face showing the disfiguring marks of the disease under which he had long laboured. He informed us that he had learned from his parents, that at the age of eighteen months his face became the seat of ulceration; and he remembered, as a boy, being under the care of Mr. Hartigan, and that subsequently he was placed in Steevens' Hospital; and he often heard the late Mr. Colles speak of his complaint as "*noli me tangere*."

He had attained almost his majority before the destructive ulceration of the face had ceased. The greater part of the nose had been destroyed; deep cicatrices were observable around the mouth; and the neck presented numerous folds, resembling those caused by a burn. The most interesting circumstance connected with the ravages of Lupus exedens in this case, was the effect on the mouth, which, in the process of healing, had been contracted to a hole of small dimensions, and which, when open, was not unlike a Saxon arch. On seeing this man, one of my colleagues observed, that his face reminded him of some of the faces delineated in Michael Angelo's "*Last Judgment*." Strange as the exterior of this man's body was, on examining the interior, an organ was found which had experienced a transformation quite as remarkable as that of the face. The left kidney was about the size of a very small egg, and did not retain a trace of its original structure; it was, in truth, degenerated. It consisted of a membrane or envelope, and a number of cells, containing a substance like plaster of Paris, and in some situations a solid mass, like bone in appearance and consistence. Dr. Frazer examined the kidney, and he found that the material of which it was formed was a mixture of phosphate and carbonate of lime, with cholesterin, granular matter, oil globules, and epithelial debris. The other kidney was larger than natural, but otherwise differed in no respect from the organ in a state of perfect health. The lungs were the seat of extensive tubercular depo-

sition, and at the apex of the left a cavern existed.

Malignant Disease of Thyroid Gland.

Dr. QUINLAN exhibited a specimen of malignant disease attacking the thyroid body and other parts. He said that it was taken from a woman aged 45, who was admitted into St. Vincent's Hospital on January 6th. When admitted she was in an almost dying state. She breathed slowly, but apparently more from weakness than obstruction; she was utterly unable to swallow solids, and swallowed fluids with extreme difficulty. On examining the chest, he found that the upper lobes of both lungs were healthy; the lower lobes were dull on percussion, and no respiratory murmur could be detected in them. The action of the heart was feeble, but healthy. A well-marked circumscribed dulness was detected in the upper part of the præcordial region, extending from the aortic valves to the top of the sternum, and about four inches in breadth. On examining the neck, to which his attention was directed by the patient and her friends, he found a hard rounded tumor occupying the two inferior triangles of the left side. This tumor was smooth and immovable; neither sound nor impulse could be detected in it. In the vicinity was a large mass of diseased glands; these, however, could be freely moved over the tumor, and were evidently unconnected with it. On the other side of the neck were similar glandular enlargements. There was no laryngeal stridor; deglutition, as before stated, was almost impossible. There was no difference in the radial pulses, nor any sign of venous pressure. On the 8th instant the patient complained of a feeling of numbness in the upper extremities, and on the 9th of loss of power over them. She died on the morning of the 10th. On making a *post-mortem* examination, he found that the cervical tumor consisted of the left lobe of the thyroid body in a state of scirrhus enlargement. This tumor pressed backwards between the trachea and the sheath of the vessels, and compressed the œsophagus against the spinal column to such a degree that the handle of a scalpel could with difficulty be passed down. It did not press injuriously on the larynx or trachea. The right lobe and the isthmus of connexion were healthy. A small tumor, about the size of a split bullet, was attached to the front of the thyroid cartilage, and connected by a slender pedicle to the isthmus of the thyroid body. The whole glandular apparatus on both sides of the neck, from the mastoid process to the axilla, was in a state of diseased enlargement. The lower part of this mass, on either side, included and pressed upon the brachial plexus of nerves. The vessels, as far as he could find, were not interfered with. There was a large scirrhus tumor in the anterior mediastinum, corresponding to the area of dulness observed during life. A process of this tumor extended back

between the upper part of the left lung and the pericardium. The upper lobes of both lungs were healthy; the lower lobes were completely carnified, and sank in water. The bronchial glands were diseased. There were a number of scirrhous tubercles, both on the surface and in the substance of the liver. There were several tubercles of the same description in the left kidney, and two in the right. The splenic end of the pancreas was indurated.

With regard to the microscopic appearances of these parts, fresh sections were carefully examined by Mr. Hayden, who reported that the thyroid tumor consisted of the proper structure of that body, extensively infiltrated with scirrhous cells; that the other growths were also malignant, with the exception of the cervical glands, which were sympathetically enlarged.

The cause of death was asthenia, as was shown by the fact that both ventricles were found full of blood. In examining the heart, a section was made through the apex, at right angles with the septum, thus showing at a glance the contents and relative thickness of the parietes of both cavities; also the proportion in which each of the latter contributed to form the apex of the organ, and without interfering with the examination of the valves. This section and its advantages were first pointed out, some years ago, by Dr. O'Ferrall, and since that time it has been used in St. Vincent's Hospital in all *post-mortem* examinations of the heart.

In reference to this case, Dr. Quinlan observed, that without entering into a detail of the opinions of pathologists on the subject, he might say, that malignant disease of the thyroid body was agreed to be an unusual affection, and that for this reason he thought it right to bring this specimen under the notice of the Society.

Polypus of the Uterus.

Dr. McCLINTOCK said.—The specimen that I now exhibit to the Society is a rather uncommon kind of polypus, which I removed from the uterus yesterday morning, by the operation of *excision*. The history of the case presents nothing remarkable. The patient was aged forty-eight or fifty years; she had been married in early life, and had borne two children, but for the last seventeen years was a widow. She enjoyed very good health, and menstruated regularly until four years ago, from which time to the present she had been subject to profuse discharges of blood from the vagina—these hemorrhages having latterly increased much in frequency and in quantity. Some days ago a tumor began to appear at the vulva, which she supposed to be a prolapse of the womb; and accordingly she consulted a medical practitioner, who concurred in this opinion, and sent her to me for advice. Digital examination at once revealed the existence of a very large polypus, filling the vagina. When viewed through a speculum, the surface of the tu-

mor presented a grey or ash colour, which contrasted very strongly with the congested vagina, and was due, I think, to a superficial slough. In size it about equalled that of a goose's egg, and was attached by a long and very thick pedicle. In order to ascertain whether it was vascular or not, I made two or three slight incisions, from which blood exuded very freely.

This tumor has rather a soft, fleshy feel, and you can see at once it is not a polypus of the ordinary fibrous kind. Traversing its longitudinal axis are several canals, the diameter of a goose-quill, and larger, lined by a smooth, shining membrane, and having no lateral communications. At the time of the removal of the growth, these canals were full of blood, and had exactly the appearance of the sinuses of the gravid uterus in the eighth or ninth month of utero-gestation. I regard this as an unusually large specimen of that variety of uterine polypus particularly described by Dr. Oldham, of London, under the name of the "channelled polypus," with this difference, however, that the canals, in the instance before us, were filled with blood; whereas, in his and other cases, they have been found distended with a thick mucous or albuminous secretion. Whence came this blood? It may have been simply an exudation, for we have seen that this tumor was abundantly vascular. I suspect, however, that the blood got into these tubes *from without*—that is, through the elliptical openings which are usually found in the neck of the growth, leading to these tubular cavities. I believe that the chief peculiarities belonging to this individual specimen were, its size, and the circumstance of blood in its canals.

ASSOCIATION OF THE FELLOWS AND LICENTIATES OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

February 3rd, 1858.

Dr. AQUILLA SMITH (V.P. Coll. Phys.) in the Chair.

Dr. HENRY KENNEDY read a paper on

Adherent Pericardium.

He divided the morbid changes which ensue into two classes:—first, simple adhesion; secondly, where, with the adhesion, the muscular textures of the heart are involved. Dr. Kennedy mentioned the frequency of partial adhesions, and at the same time stated his having seen cases in which the heart and pericardium formed one solidified mass. The most frequent changes in the textures of the heart, in connexion with adherent pericardium, were of the fatty or greasy character. Of ninety cases of adherent pericardium, he found dilatation of the cavities in twenty-six; aneurismal dilatation of the apex of the heart very common, standing in the relation of cause and effect; healthy heart frequently associated with adherent pericardium. Dr. Kennedy considered no

single sign diagnostic of adherent pericardium; he advised caution in the prognosis, and the effecting assurance on the lives of such cases indiscreet; at the same time stating that authorities differed with him on this latter point. The treatment he advised in these cases was local bleeding and mercury.

An animated discussion ensued, in which Dr. Richardson, Dr. McClinton, Dr. Law, and others, took part, in the course of which Dr. Law stated, "that irregularity of the pulse and heart's action, with dullness on percussion over the præcordial region, in all positions," are the diagnostic symptoms of adherent pericardium. He considered adherent pericardium (contrary to the usually received opinion) tended rather to atrophy than hypertrophy of the organ.

Dr. HUGHES read the details of a case of

Thoracic Aneurism of seven months' duration.

In the early stage there was the usual obscurity in the physical signs. On percussion, the heart and lungs were healthy, except in the right mammary region, where there was slight dullness, with absence of respiratory murmur. Afterwards a pulsating tumor appeared; pain down the right arm, to the tips of the fingers; extreme nervous sensibility; the pain in the tumor, anteriorly, was lancinating and intermitting; posteriorly, dull and aching. Leeches were applied to the tumor; afterwards ice and refrigerants. The patient's diet was generous, and opiates were exhibited. The tumor grew apace, and on the 12th December last Dr. Hughes determined to try the dietetic treatment, as recommended by the late Dr. Bellingham. Accordingly the patient was given two ounces of milk and two ounces of bread for breakfast; four ounces of meat and four ounces of bread for dinner; the same allowance for supper as for breakfast; no fluids. The recumbent position was strictly enjoined. On the second day after this plan of treatment was adopted, the pain and nervous sensibility somewhat abated; on the third day the pulse had sensibly decreased in frequency, and the pain was much relieved. During the second week the pulse was slightly below the natural standard; pain gone; pulsation in the tumor lessened; the tumor diminished in size, and the patient's spirits cheerful. Unfortunately he was now seized with a cough; the pain returned to the tumor; the pulse rose to 86, and a bruit was audible with the first sound of the heart. In this critical position the patient now remains. Dr. Hughes considered this dietetic plan well deserving of a fair trial. The privation of fluids is most felt by the patient; this he proposed to obviate by giving small pieces of ice. After an interesting discussion on this case,

Dr. SMITH read a

Case of Arthritic Rheumatism,

which occurred in a young man aged 18 years. The treatment employed was calomel, watery ex-

tract of opium, and hippo, with tincture of the seeds of colchicum; afterwards iodide of potassium was added to the mixture containing the colchicum. The local application to the affected joints was tincture of aconite and soap-liniment. On the fourth day the patient was convalescent; on the eighth Dr. Smith discontinued his attendance. He advocated the internal administration of colchicum in analogous cases, in which treatment Dr. Law coincided, the latter generally preceding its exhibition by bleeding.

ON THE ORIGIN AND FORMATION OF
TUBERCLES IN THE LUNGS.

By J. L. C. SCHREORDER VAN DER KOLK.

Translated from the Dutch by*

WILLIAM D. MOORE, A.B., M.B. T.C.D.,

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Among the most important morbid changes we meet with in the body, and which have at all times attracted the attention of physicians and anatomists, are tubercles, which occur so frequently, and in the lungs often give rise to pulmonary consumption. Investigators have, in fact, almost exhausted themselves in seeking for explanations of these singular productions of morbid formation. On this subject I shall not, however, at present go into historical details, but will only remark, that observers have particularly endeavoured, in various modes, to trace the cause and manner of origin of these tubercles; in which investigations, misled by the so frequent general diffusion, and the external appearance of little tubercles, they have had it more in view to discover a general cause in a special condition and change of the blood, than to study accurately the nature and structure of the tubercles themselves, and to trace the progress of their growth.

Laennec thought that the origin of tubercles was to be sought in a peculiar matter infiltrated from the blood into the lungs, but which could by no means be the result of local inflammation.† This idea has been further developed, especially by Rokitsansky, who imagined that the explanation of the origin of tubercles should be found in a general alteration of the blood, in a blood-crisis, of which he assumed certain laws.

The principal characteristic, namely, whereby tubercles in general are distinguished from other matters effused in consequence of inflammation, is found in the peculiarity, that they, especially such as occur in the lungs, have no power of further development, and of becoming organized, as they pass into a state of softening, suppuration, or occasionally into a firmer, hard condition—*cornification*, as Rokitsansky terms it—or are converted into a calcareous state; but that no new organic tissue is produced from tubercle. Rokitsansky was of opinion, that the cause of this was to be found in a change of the blood, in an original anomaly of the blastema, and that the form and chemical properties of the various exudations should correspond to the primitive morbid changes of the protein matters, and to the anomalous condition of the fibrin in the blood; and thus many a blastema, in consequence of its original nature and composition, should be the cause of its non-development, and should carry in itself the germ of its own destruction.‡

Rokitsansky thus assumes a fibrinous, croupy, tubercu-

* *Nederlandsch Lancet*, third series, second year, 1852-53, p. 1.

† *De l'Auscultation Médiate*. Paris, 1819, tome 1, p. 84.

‡ Rokitsansky, *Path. Anat.* Bd. 1, p. 139.

lous, albuminous and purulent blastema,* as well as a fibrinous, croupy, tuberculous, albuminous, and purulent crasis of the blood,† whence the blastema should be developed of the same nature.

Though I am far from wishing to deny the existence of morbid changes in the blood, which exhibit themselves numerously enough, as well in simple inflammation as in chlorosis and other affections, I can, at the same time, by no means assent to a crasis-theory, resting not on certain observed facts, but appearing rather to be assumed *a priori*, in order to explain the particular properties, especially of tubercle, to which I now confine myself—namely, the peculiarity that they are capable of no further and higher development, and also partly their occasional so general dissemination through the body.

Though albumen and fibrin are deposited unchanged by effusion through the walls of the bloodvessels, they still occur as exudations, everywhere in contact with the nutritive fluid, which is almost always acid, and contains more phosphates and potash salts than the serum;‡ but especially with organic constituents and cells, which have a powerful metamorphosing action on these exudations. They are, by absorption, gradually deprived of their water, and now constantly undergo further changes, whereby they become more and more unlike the original combinations of albumen and fibrin, as the latter are separated from the blood.

Hence it immediately appears how dangerous it is, from the nature and form of this altered tuberculous matter, to infer such an agreement with the same ingredients in the blood, and thus to assume an original peculiar blood-crisis.

Rokitansky appears, however, not to assume in this any change in the tubercles, which he regards as the product of coagulated protein matters, persisting as blastema in the lowest stages of development—that is, in the condition of so-called crudity; this solid blastema it is, therefore, which yields the tubercles.§

The view, however, that albumen and fibrin should be capable of undergoing, even in the blood, such morbid changes as to lose their capacity for further development, is so very much opposed to all ideas of nutrition and assimilation, which still must incessantly go on during life, that we can scarcely imagine existence to continue with the blood so morbidly altered. Yet, if muscles and other organs of the body continue, in tuberculosis, to receive from such blood the matters which are organized to form their constituents, it is difficult to reconcile with this circumstance Rokitansky's statement, that in some cases "every extant minimum of fibrin is separated in a state of tuberculous dyscrasia, in the form of tubercle."|| As, moreover, this morbid quality is said to communicate itself, after the disappearance of fibrin from the blood (defibrinated condition of the blood), to the albumen,¶ nothing can remain, adapted to nutrition and the maintenance of life of a tubercular patient, in the blood.

Rokitansky further distinguishes fibrinous and albuminous exudation, and even assumes still more numerous modifications of fibrinous exudations, croupy α , β , γ , and tuberculous exudation, which also is said to be formed of fibrine.** But if we reflect how difficult it is to distinguish albumen and fibrin—especially after coagulation or solidification—from one another; how the capability of fibrin to be coagulated is modified by a number of various causes,†† which greater or lesser tendency to, or capacity for coagulation, plays so large a part in Roki-

tansky's theory of crases; and, indeed, recollect that chemistry does not yet furnish any means of distinguishing with certainty coagulated fibrin from coagulated albumen;‡ it cannot be maintained, that difference in solidity and colour of different tubercles can afford any ground for hence inferring original morbid changes of fibrin or albumen.

If, in reference to this point, we bear in mind the great variability of the blood during life, this fluid being altered every moment by the taking up of several constituents from the food, by the constant metamorphosis of these substances, through the influence of respiration, and incessant secretion and excretion; while even in the different vessels, in consequence of the metamorphosis of tissue in the nutrition and separation of various parts, it must possess a tolerably dissimilar composition,§ such a persistent morbid constitution of the fibrin or albumen, or indeed of both, with continuance of life, and of the normal functions of the brain, senses, muscles, and so many other organs as still perform their functions without disturbance, is nearly inconceivable.

Not only the origin of these tubercles, but also, as I have already observed, their varieties, are explained by the supposed difference of blood-crisis. Thus Rokitansky assumes a simple fibrin-crisis, from which grey tubercles are formed;‡ distinguished chiefly by this, that they are capable of passing into a state of condensation, hardening, and even cornification (not a happily chosen expression), and sometimes into one of ossification, or into a calcareous condition, but by no means into softening.§ Again, we have a croupy crasis, said to give rise to the existence of yellow tubercles, differing from the preceding by their tendency to softening and supuration,|| which different terminations are by no means to be regarded as the consequence of a varying degree of inflammation—which may, however, co-exist with them—but as the results of the primitive morbid crasis which the fibrin has assumed in the blood. That this explanation is, however, not sufficient to account for the form of the tubercles, Rokitansky himself has felt; and he expressly says—"Still these crases just mentioned are by no means adequate to afford a satisfactory explanation of the nature of the tuberculosis;¶ he is therefore obliged, he says, certainly to graft on these crases a peculiar tubercular modification.**

I must confess, with all the respect which I feel for the indisputable merits of Rokitansky, that this mode of explanation always brings vividly to my mind Molière's saying about the *virtus dormitiva* in opium. In it sufficient importance is not, in my opinion, attached to the nature of the tissue on which the different tubercles almost always occur. Thus, according to Rokitansky, the greyish dried tubercle, the result of a simple fibrin-crisis, occurs chiefly on the serous membranes, the pleura, &c.;†† the croupy fibrous tubercle, which has a yellowish appearance, and subsequently becomes softened, arises almost invariably in the pulmonary cells. They owe their origin, according to him, to a different crasis; while, however, the different natures of a serous and of a mucous membrane must produce an important difference in the composition of the matters secreted by these membranes. When, too, the grey tubercle occurs in the lungs themselves, this difference is, I am convinced, explicable chiefly by its situation in the lungs,

* Lehmann expressly says—"We must for the present completely renounce all pretensions to distinguish coagulated protein bodies in the animal body from one another; and it is therefore perfectly absurd to inquire whether coagulated fibrin or albumen is contained in tubercle or in carcinoma—a point which certainly many adherents of the pathologico-anatomical school, without appealing to a chemist, believe they have fully decided."—*Phys. Chem.* Bd. 1, p. 347.

† See Lehmann, *Phys. Chem.* Bd. iii. p. 142.

‡ Rokitansky, *Path. Anat.* Th. i. p. 519.

§ Page 397.

|| Pages 519 and 399.

¶ Page 520.

** Page 520.

†† Page 397.

* Page 196, et seq.

† Page 503 et seq.

‡ See Lehmann, *Phys. Chem.* Bd. iii. Th. 1, p. 140.

§ Rokitansky, *Pathol. Anat.* Bd. 1, p. 392.

|| Page 522.

¶ Page 523.

** Loc. cit. pp. 196 et seq.

†† It is well known that the quantity of fibrin obtained from the blood by ordinary coagulation and washing, is not equal to the quantity which may be obtained by whipping the same blood.

and the different tissue, as I shall hereafter show, in which it is primarily formed. If, on the contrary, we ascribe the grey tubercles to a simple fibrinous crasis, with a strong tendency to coagulation,* the yellow to a croupy crasis, both crases should always co-exist in the lungs, as tubercles of the first kind are constantly deposited simultaneously in the partition walls between the lobules of the lung, and the yellow in the cavities of the pulmonary vesicles themselves; so that fibrin capable of organization is deposited only in the partition walls, while that which is not adapted for organization is deposited in the cavities of the pulmonary vesicles.

The peculiar tubercular form, moreover, cannot be explained by the assumption of a crasis further unknown to us, but is rather the consequence of the structure of the part in which the tubercles arise. If a slight local effusion takes place, in consequence of inflammation, from one or more capillary bloodvessels, the effused matter extends around the central point, may locally accumulate, and so, as papule or pustules, assume more or less of the tubercular form—that is, be limited within a small extent; but if the tissue is—as, for example, in the lungs—divided into vesicles and lobules, which latter are mutually connected only by connective tissue and some bloodvessels, the effused matter is restricted within the bounds of the pulmonary vesicles, and consequently must, so long as it has not spread itself as a general effusion occupying many pulmonary vesicles and lobules, necessarily assume the form of tubercles (tubercula).† If, however, the tissue is more connected, if it is not separated into minute subdivisions—as, for example, in the liver or the brain—we much more rarely find small tubercles; but when such morbid productions occur, they are usually much larger, or extended more uniformly into large nodules (knobbels);—a circumstance which cannot well be explained from the nature of a crasis.

Moreover, the situation where tubercles most frequently occur by no means consists with the idea, for example, of a fibrinous tubercular crasis. Thus tubercles are met with, according to the testimony of Rokitan-sky himself, most frequently in the lungs, the intestinal canal, the lymphatic glands, &c., but most rarely of all in the muscles;‡ as is also sufficiently confirmed by experience. It is, however, more than probable that the muscles are nourished principally by the fibrin of the blood. This fibrin appears to be a somewhat higher degree of oxidation of albumen, and accordingly the quantity of fibrin in the blood agrees with the capacity of the respiratory organs. The more capacious the latter are, for example, in birds, the more plastic is the blood, the more highly developed are the muscles.

The same may be observed in the carnivorous animals, which are distinguished as well by their capacious breathing apparatus as by the powerful development of their muscles. It is also well known that a broad-shouldered man, with a large chest, possesses a comparatively strong muscular apparatus, while in both these respects the man is remarkably distinguished from the woman.

It is, therefore, strange, that while the muscles are nourished chiefly by the fibrin present in the blood, tubercles, arising from a primitive morbid fibrinous crasis, should so very seldom be met with in these organs, exactly where we should expect such a morbid crasis first to manifest itself.

In this theory of crasis, the idea of local inflammation, as a cause of tubercle, is further removed; and nevertheless Rokitan-sky himself acknowledges that the products of a simple inflammation, without crasis—for example, after local inflammations—agree as simple exudations, and as croupy exudation, which is purulent, with the products of a dyscratic exudation, and there-

fore with the tubercles themselves.* Thus even he admits that tubercle is often the product of inflammation.†

I therefore cannot see why, in order to ascertain the nature of tubercle, we should be obliged to take refuge in the hypothetic existence of an original crasis, which is not corroborated by any examination of the blood itself, while, as I hope to show, a more accurate investigation of the morphological constituents of the tubercles themselves affords a sufficient explanation of their peculiar composition, and of the reasons why they are not capable of further development.

The question remains, therefore, whether the frequent occurrence of so general a diffusion of tubercles throughout the body should not lead us to assume the existence of some peculiar primitive crasis.

I willingly admit that, for example, in a scrofulous constitution, where tubercles are developed in so many situations, the blood cannot be healthy; but in this case there also exists a disease of the lymphatic system, which exercises such an important influence on the preparation of the blood and the elaboration of its principal constituents. According to the doctrine of crases, however, this affection of the lymphatic system, whereby so many tubercles are developed, should be rather effect than cause. Rokitan-sky, indeed, supposes the existence of a primitive crasis of the blood, of which the local affections are the result,‡ while tuberculosis is, in his opinion, one and the same disease with scrofulosis.§ The affections of the glands are, therefore, according to Rokitan-sky, results of the crasis, and not vice versa.

Moreover, that the general diffusion of tubercles is not satisfactorily explained by a crases-theory, has already been shown, as it does not hence appear why in a so-called fibrinous crasis the tubercles should spare the muscles, which ought to be the first organs to participate in the morbid condition of the fibrin of the blood. Finally, the doctrine of crases does not explain why, for example, in pulmonary tubercles the disease commences with the deposition of only a few tubercles, which spread very slowly. If the cause were to be found in a general alteration of the admixture of the blood, these should from the first be formed equally throughout the whole lungs, since the same blood flows through all parts of these organs.

(To be continued.)

Bibliography.

A Treatise on Rheumatic Gout, or Chronic Rheumatic Arthritis of all the Joints. By R. ADAMS, M.D., A.M., M.R.I.A. Illustrated by Woodcuts and an Atlas of Plates. London: Churchill. 1857.

To say that the medical and surgical literature of this country has received a most valuable addition in this admirable monograph, by one of our most distinguished surgeons, is but to express the opinion which the profession itself will have already pronounced on the work in question.

The want of any detailed treatise on chronic rheumatic arthritis has long been felt. Descriptions of this remarkable disease in different articulations no doubt exist, many of which have been contributed from time to time by Mr. Adams himself; but as the information thus conveyed, and which for the most part related merely to the morbid anatomy of the affection, was only to be acquired "by a vigilant search into the reports of medical societies, and in the journals of the day," Mr. Adams judged—fortunately, we think, for the cause of pathological anatomy, and ultimately, perhaps, of suffering humanity—that a monograph on the subject was called for.

* Loc. cit. p. 194.

† Loc. cit. 415.

‡ Loc. cit. p. 496.

§ Loc. cit. p. 434.

* Page 509.

† See my *Observationes Anatomico-Pathologicae*, Amst. 1826, p. 65.

‡ Loc. cit. p. 435.

The result has been a work which abounds in research and originality, and which is written with all that felicitous clearness of description and propriety of language, for which the writings of Mr. Adams have always been distinguished.

The book consists of two parts. In the first part, the disease is treated of generally. Chapter I. contains its history; Chapter II., its course and symptoms; whilst in the succeeding three chapters, the diagnosis, prognosis, anatomical characters and treatment, are succinctly but fully described.

Of the authors who at an earlier period have adverted to the subject, Haygarth and Cruveilhier take the most prominent places. Each assigned to the disease a distinct name; the former, "nodosities of the joints," the latter, "usure des cartilages articulaires," in order, probably, to gain for it a more special attention.

Objecting to these names, but agreeing with Haygarth and Cruveilhier, "that it is a matter of much importance to give to this disease some special designation," Mr. Adams long since named it "chronic rheumatic arthritis," and under this head, communicated to the Pathological Society in this city, much valuable information on the malady.

Nor are the labours of Dr. R. W. Smith overlooked, and we learn that this distinguished pathologist was the first in this country to publish any account of the disease. His valuable paper (containing an account of the disease as it affects the hip-joint,) will be found in the sixth number of the *Dublin Medical Journal*.

Mr. Canton's papers in the *Medical Gazette* are also mentioned among the more recent observations on the subject.

On the important subject of treatment, much is left to be determined by future experience; and a perusal of Chapter V. obliges us to continue in the belief that no plan of treatment has yet been found which can be relied on to arrest the progress of this disease. In too many instances, all that medical treatment can effect, is to alleviate the more urgent symptoms: hence, anodynes are prominent among the therapeutics of chronic rheumatism.

Recognizing with some observers (Haygarth and Cruveilhier), an inflammatory condition of the affected joints, at least in an early stage, Mr. Adams recommends local depletion, but hesitates to speak of the efficacy of medicine. Sulphur with guaiacum, the ammoniated tincture of guaiacum, he has sometimes known to be beneficial; *theoretically*, rest, local depletion, warm baths, and mercurials with opium, "seem to be the most rational means to resort to, with the expectation of arresting the progress of the affection in its early stages." But the author adduces no evidence to show that this expectation is ever realized. Different thermal springs have been, and still are, highly reputed; on this subject Mr. Adams speaks with a candour which will in vain be looked for in those authors who have no higher ambition than to gain by their writings an ephemeral notoriety. Mr. Adams says (page 52)—"The study, however, of the important subject of the treatment of this disease has not yet been sufficiently advanced to enable us to decide as to the positive or relative merits of these several watering places; but when the affection has become more generally understood . . . and the results of experience have been faithfully recorded, then, and not till then, will the physician be enabled to speak more positively as to the general medical treatment, both of the local and constitutional form of chronic rheumatic arthritis."

Most truly do we assent to the sentiment, "that in these days, when many books are written with less regard to the furtherance of medical science, or to the solution of medical difficulties, than to the advancement of the authors in practice, it is refreshing to find a gentleman able and willing to devote himself to the investigation of medical theory."

In lamenting, however, the inefficacy of medical treatment, we are consoled by an observation of Hay-

garth's, which subsequent experience largely exemplified, that "this is a disease which sadly embitters but does not shorten the duration of life."

The second part occupies by far the larger part of the work; in it "chronic rheumatic arthritis is considered specially in each joint." This must be regarded as the most valuable portion of the treatise, of which, accordingly, it occupies by far the largest part, and to it the first part may be regarded as introductory.

Our limits will not permit us to attempt to notice, even briefly, this division of the work; suffice it to say, that the anatomical characters, symptoms, and diagnosis of chronic rheumatic arthritis, in almost every articulation, are described with remarkable accuracy and completeness. True to nature these descriptions must be, for the different subjects connected with this disease have occupied the attention of the author for upwards of twenty-five years. We have no hesitation in saying that no subject in the whole range of pathology has ever been more thoroughly investigated, or better described. This portion of the book is profusely illustrated by highly executed woodcuts, whilst the lithographic drawings in the atlas are beyond all praise. It would be almost presumptuous to say that we recommend this work to the profession; the work recommends itself, since in every respect it bears the stamp of such excellence as might have been expected from the reputation of the talented author.

A NEW PERCUSSION HAMMER.



DR. VERNON, of the Great Northern Hospital, has forwarded to us the following description of the above instrument:—

"The hammer, of which the above drawing is a representation, is one which suggested itself to my mind several years ago, when attending the clinique of Dr. J. Hughes Bennett, of Edinburgh. Having latterly been more frequently engaged in the diagnosis of thoracic diseases than at any previous time since the idea suggested itself to me, I have had the instrument made by Messrs. Whicker & Blaise, of St. James's-street. The hammer consists of a slender tapering handle of whalebone, eight inches in length, surmounted by a sphere of bell-metal, weighing one ounce. The sphere of metal is grooved deeply in an equatorial direction, and a stout ring of caoutchouc is let into the groove, as a cushion upon which to strike. Such is the instrument—simplicity itself.

The advantage which a percussion hammer has over the fingers is very obvious, especially in cases where much refinement is required. The rudest efforts of an unskilful neophyte will distinguish between the dulness heard in the centre of the hepatic region and the generous resonance of the upper and anterior parts of the thorax. But the greatest utility of percussion is precisely in those cases where we desire to distinguish slight differences, and hence the advantage of a means of defining such distinctions.

The hammer now in general use is that invented by Dr. Winterich, of Wurzburg. Its form is of course familiar. The advantages claimed for Dr. Winterich's hammer are, principally:—

That it produces a clearer and more penetrative sound than can be produced with the fingers by the most practised percussor; and

That very short use of it places the inexperienced on the same level as the expert, while it not only compensates for lack of manual dexterity, but also for such natural defects as malformation of the hand.

To these I would add, that it compensates for extreme lightness of the hand—a circumstance which is

an almost insuperable bar to efficient percussion upon the bodies of very robust or obese persons.

Notwithstanding these advantages, the hammer of Dr. Winterich is not perfect. It is so inconvenient to hold that most persons make no use of the indentations in the handle, but grasp it bodily. The handle, again, is laterally flattened—an error of importance, when it is considered that the instrument is essentially a musical one, and should be held lightly and easily. The handle, moreover, is rigid—a provision which still further defeats its object, which is to produce a clear and definite tone. But the greatest defect is, that the head is so formed and so placed on the end of the hammer, that there can be no certainty of producing the same note, even when striking the same spot with the same force. If the long axis of the head of the hammer does not strike the body of the patient at right angles to its surface, the sound elicited will vary both in quality and intensity. In many positions of the operator or the patient, it is impossible to avoid an oblique impingement of the head of the hammer, whose amount of obliquity can neither be governed nor estimated in valuing the sound elicited. These are not merely theoretical objections; they are practical, the result of my own experience. To sum up the defects of Dr. Winterich's percussor: It is inconvenient to hold, it is rigid, and it will not produce a note of the same value at each stroke unless the direction in which the axis of the hammer-head strikes the body is the same each time; it requires education to use it, and even then does not perfectly fulfil its purposes.

The purpose of a percussion hammer being to produce a clear and definite sound, and not to drive a nail into the body, instead of imitating a carpenter's hammer, as Dr. Winterich has, I have rather taken a hint from the musician, and imitated a drum-stick. The advantages possessed by the hammer figured in the preceding column are:—

1. That the stem being round and smooth, it may be lightly and easily handled.

2. That the handle being elastic, the hammer-head springs off the pleximeter momentarily, as the hammers of a pianoforte do off the strings of that instrument; the result being a clear tone, the vibrations of which are not checked by the lingering of the hammer on the vibrating body.

3. That in whatever direction the hammer falls on the body, if the same spot be struck with the same force, the note produced will be the same; because the handle of the hammer being round, and the head spherical, every axis is equal in length, and the line through which the force acts is equal, in every possible position of the hammer, the operator, or the patient.

To sum up, the superiority of this instrument over Dr. Winterich's consists in the facts, that it is convenient, elastic, produces the same sound however held, requires no education to use it, and fulfils all its purposes.

In children and very spare adults I prefer the fingers, because they are generally sufficient, and they recognise the sense of *resistance*; but in even moderately-developed adults I believe a hammer, and especially the one I have described, will be of great service to those who are not very skilful with the fingers, or have hands too light to elicit the desired sounds.—*Lancet*.

[Our readers are also indebted to the courtesy of the Editor of the *Lancet* for the woodcut annexed.]

ANNUAL MEETING OF THE BELFAST BRANCH OF THE MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.—The annual meeting of the above most useful and philanthropic Society was held on Monday; Dr. Patterson presided. The society is neither a benefit society nor an assurance club, but a strictly charitable institution, founded and promoted for the express purpose of assisting medical men, when struggling under the pressure of sickness or any other casualty. This, it should be

known, is its primary object; but, under circumstances of urgency and distress, the society affords relief to the widow or family of a professional man, who may have been deprived of the support and affection of either a husband or parent. Having made this reference to the society's general purposes, we have only to add, in regard to the annual meeting of this local branch, that, after the transaction of some routine business, the subscribers proceeded to the election of a permanent president, Dr. Stevenson having resigned that office—one which he filled with much zeal and ability during the last ten years—when Dr. Henry Purdon was unanimously appointed his successor. Professor Gordon having likewise begged to be relieved of his office of treasurer, which was reluctantly consented to, Mr. Browne, R.N., was elected in his place, and Dr. R. Stewart was re-appointed the honorary secretary.

THE JENNER MONUMENT.—We have much pleasure in stating that the subscription list for the erection of the Jenner Monument is full. The statue will shortly be erected.

APPOINTMENT.

Dr. JOHN RYAN has been appointed Medical Officer to the South City Dispensary, Grand Canal-street, Dublin, in the room of Dr. Head, resigned.

DEATH.

At his residence, 43, York-street, Feb. 4th, ROBERT MOORE PELLE, M.D. The death of this venerable Surgeon requires more than ordinary notice. With him has passed away the last link which connected the present era of surgery and all its vast improvements, with what we may term the ante-Hunterian age. Mr. Pelle was the last of those who were nominated Members of the Royal College of Surgeons in Ireland, in the Charter granted to that body by His Majesty George III., in the Year 1784. He stood beside John Hunter in December 1785, when that distinguished Surgeon first placed a ligature on the femoral artery, for the cure of popliteal aneurism; and we have often listened with delight to his graphic description of the operation, and Hunter's remarkable words as soon as the ligature was tied, "Now the absorbents are as busy as mites in a cheese." Mr. Pelle was also a cotemporary of Desault, and had often seen him operate, and used frequently to launch out into praises of the "ready head and skilful hand" of this distinguished Surgeon. Mr. Pelle, in early life, was actively engaged in military service; in the year 1796 he was appointed Surgeon to the hospitals for the forces serving in Ireland; and after eight years' service he was promoted to the rank of Deputy-Inspector of the same. The late Dr. Benny was Inspector-General of Military Hospitals, and the most efficient co-operation for the public service was manifested until the connexion was dissolved by the illness and death of Dr. Benny. Mr. Pelle retired from the service in the year 1847, with the rank of Inspector-General. At a very early period of his professional life he was appointed Surgeon to the House of Industry Hospitals, with which he maintained his connexion until the year 1850, when he retired, receiving from his colleagues a well-merited address, expressive of their high appreciation of his private and professional character, and of their respect, esteem, and warm personal regard. He also held the office of a Consulting Surgeon to Dr. Stevens' Hospital, a position he always regarded with pride and satisfaction. He was an excellent medical Surgeon, and a most expert and skilful operator. In operating for lithotomy he was particularly successful, using instruments of his own construction, which definitely limited, and at the same time facilitated, the proper incisions. These instruments are well known to the profession as "Pelle's Lithotomy and Staff." Although other instruments have since been more generally used, yet the same principles of safe direction and limitation of extent of incision are observed. In his professional intercourse he was always impatient of depreciating remarks made by any parties on other medical men, and yet never compromised the safety or welfare of his patients for whom he was consulted. Solicitous and attentive to the poor as to the rich, he was liberal and charitable without ostentation. The course of his life presented an example to his profession, worthy of remembrance and of imitation.

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Hardwicke Hospital.

CLINICAL REPORTS AND OBSERVATIONS ON MEDICAL CASES.

By J. T. BANKS, M.D.,

King's Professor of Physic, &c., &c.

*Anomalous Scarlatina.—Purulent Arthritis.—
Pyothorax.—Peritonitis with purulent effusion.*

A boy, aged 14, was received into the Hardwicke Hospital on the 1st of December, 1857, having been ill, according to the statement of his mother, for the five preceding days. His illness commenced with headache, sleepiness, chilliness, but not actual shivering, followed by heat of skin, &c., &c. For the last two days a redness was observed on the trunk, which appeared first on the left shoulder, and afterwards on other parts of the body. He had complained of *slight* soreness of his throat also before coming into hospital. His condition, as reported on admission, was the following:—General febrile disturbance; pulse 112; temperature of the skin high; tongue rather loaded; secretion of urine below the usual standard in quantity, and high-coloured, but not otherwise abnormal; the bowels were regular; the throat intensely red, but no ulceration, and very little swelling; the face was pale, but over the remainder of the body a scarlatinal rash existed in patches and streaks; but nowhere, except at the flexures of the joints, was the exanthem fully developed; the chest and abdomen were densely covered with a crop of miliary vesicles, which were also thinly scattered over the skin in other situations.

On the second day after his reception into hospital the rash suddenly disappeared, but towards evening it came out again. From this period to the 9th of January the disease presented no anomalous symptom; the fever gradually subsided; the rash faded away, and the desquamation had commenced, when on this day rigors of extreme

severity set in, which continued at intervals during the greater part of the day; and the febrile commotion of the system, which had completely ceased, was now rekindled. A restless, and well-nigh sleepless night was passed, and on the following morning the boy complained of pain in the right elbow, and the expression of his countenance was indicative of much distress and suffering. On examining the joint it was found to be swollen and red, the slightest attempt at moving it giving rise to exquisite pain. Next day the right knee was similarly affected, and the elbow remained as before. For the next three days the pain of the joints was excruciating, and was unmitigated by the remedial means employed with a view to its alleviation. On the 14th December the elbow was less swollen and less painful; and although there was no marked diminution of the swelling of the knee, the pain was by no means so severe, and the whole aspect of the patient underwent a favourable change, especially observable after he had spent a tranquil night.

For the next three days the amelioration continued, but it was illusive, for now the ankle and hip-joint of the same side became the seat of inflammatory action, and the condition of the patient was more unpromising than even heretofore. The fever assumed a typhoid type; the pulse became rapid and feeble, the tongue dry and dark-coloured, and the powers of life were manifestly failing. On the 23rd a crop of miliary vesicles were again observed to be scattered over the body, but there was no redness of the skin, and the vesicles soon disappeared. A dark spot was also now noticed on the sacrum, and it was also found necessary to draw off the urine by an instrument, some hours having elapsed during which ineffectual efforts were made to empty the bladder. From this time, with the exception of a brief and deceptive rally, the progress of the case was steadily tending towards a fatal termination; nevertheless, food of the most nourishing description, and wine in considerable quantity, were taken; and to the fact of the stomach exhibiting such remarkable tolerance may be attributed the protracted strug-

gle made under sufferings such as are rarely experienced in any form of disease. Every part of the body subjected to the slightest pressure became gangrenous, and on the detachment of the sloughs, purulent matter in enormous amount was poured out; and this drain from the system went on from day to day in increasing quantity. No other joints were affected, those of the left side of the body remaining free.

For the two days preceding the boy's death, which occurred on the 15th of January, his breathing, which had hitherto been easy and natural, became hurried, and the abdomen became enlarged, and painful on pressure. The slightest movement of the body being attended with pain, precluded any very satisfactory examination of the chest; nor, indeed, could it be productive of any useful result, as death was evidently impending. From the commencement of the disease to the last moments of life the mind continued perfectly unclouded.

On examining the body, the joints which had been the seat of disease during life were found filled with purulent matter, and in some parts the ends of the bones were eroded by ulceration. The cavities of the articulations were not the only parts in which purulent effusion was present, for the tissues around the joints, and the muscles in the immediate vicinity, were also infiltrated with pus. The right pleura contained a notable amount of purulent matter, and the left pleura, to a lesser degree, was the seat of effusion.

The peritoneum was inflamed; the folds of the intestines were slightly adherent, the membrane smeared over with greenish-yellow matter, and purulent fluid also in the cavity of the abdomen.

No other organ presented any deviation from the normal state. The kidneys were the subject of minute examination, and they did not exhibit a trace of disease.

The case of scarlatina, the history of which has been briefly given, is one which, doubtless, from its presenting most unusual complications, is well worthy of more than a casual and passing notice.

It does not appear that the prodromal fever was marked by any circumstance different from the ordinary symptoms which present themselves at this period of the disease; the next stage, however, commenced in an anomalous manner, the scarlatinous rash appearing on the shoulder, and thence spreading over the trunk—the face being free from the eruption, and continuing so during its whole duration on the other parts of the body. The exanthem was, so to speak, abortive, never at any time, or in any situation, being perfectly normal; it was, moreover, evanescent; and in addition it should be remembered, that the skin was studded with miliary vesicles, which, however, contained colourless fluid, there not being in any of them a trace of purulent matter. No elevations of the cuticle of large size occurred, such as are sometimes seen, constituting the form of scarlatina to which the name of “scarlatina pemphigoides” is given.

A second eruption of the miliary vesicles occurring at an advanced period of the disease constituted another anomaly. The partial and rudimentary rash, with the vesicles, might lead to the opinion that the case would not proceed through the subsequent stages without some further irregularities; but there was no reason to expect the events which followed. There were no petechia, nor vesicles filled with blood, which so generally indicate malignancy, and may be looked on almost as a lethal sign.

We now come to remark upon the complication which arose after the subsidence of the rash, and during the desquamation process—viz., the arthritic inflammation. That this affection of the joints is rare we may assume, not merely from our own experience in this city, but from the records of epidemics of scarlatina in other localities. In many works on the subject, and in many standard books on practical medicine, no mention is made of it. An affection of the joints which we have often met with is alluded to by Dr. Watson, in his lectures, characterized by pain and swelling, “simulating very closely the phenomena of subacute rheumatism,” but “eased and benefitted by friction.” The learned and distinguished professor of clinical medicine in the university of Leipsic speaks of *inflammation* of the joints as a complication of scarlatina; and the terms in which he refers to it indicate its unfrequency:—“Wirkliche Gelenkentzündungen gehören mehr zu den *Seltenheiten* und kommen meist nur bei elenden schwächlichen, schon etwas älteren kindern, besonders in der Abschuppungsperiode vor.”

In the “Clinical Medicine” of the late Dr. Graves there is much valuable information on the subject of scarlatina, not merely derived from the author's own observations of the disease, but also from reports which he received from many medical men in different parts of Ireland, relative to their experience of the malady, as it manifested itself in their immediate localities.

Of the numerous complications referred to, we do not find arthritic inflammation mentioned. No allusion is made to it by Dr. Osbrey, who had 200 cases under his care, many of which were of an extremely malignant type; but in them the poison expended itself upon the neck and the cerebro-spinal system. Of this formidable disease Dr. Osbrey has given the most graphic and faithful delineation. Purulent arthritis has, however, been observed by Dr. Corrigan in connexion with scarlatina, an example of which he brought before the Pathological Society, as did also Professor Smith.

Dr. Henry Kennedy, in his admirable account of the epidemic of scarlatina which prevailed of late years in Dublin, has also noticed it. He found that the diffuse inflammation sometimes spread down the neck, and involved the sterno-clavicular articulation.

My object in detailing the case upon which I have made these cursory remarks is, to direct at-

tention to the extraordinary pyogenic tendency which it presented. Not only were the large joints and the parts in their vicinity bathed in pus, but the pleural and peritoneal membranes had also poured it out abundantly; and from the sloughing and gangrenous patches upon the back, purulent matter flowed in enormous quantity. The duration of life under the circumstances may well excite astonishment. I confess that when I saw the elbow-joint (the first attacked), my impression was, that the diffuse inflammation would *rapidly* bring the case to a fatal close; but the boy lived from the 9th of December to the 15th of the following month.

The treatment employed in this case consisted chiefly of means available to support the strength, evidently from an early period flagging, and overwhelmed by the poison. Chlorate of potash, a remedy of much value in many cases of scarlatina, was given; quinine was administered; repeated and constantly-increasing doses of opium were indispensable; wine and the most nutritious diet were unsparingly supplied. From the moment of the appearance of the inflammation of the joint, the prognosis was to the last degree unfavourable, the expectation being, that the disease would run the course which such anomalous and complicated cases too frequently do, despite all our efforts.

The records of epidemics of scarlatina supply us with abundant evidence of its fearfully fatal character, when certain complications occur; and the experience of all who have seen the disease under such circumstances confirms the fact of the impotence, in many cases, of all measures devised to stay its destructive progress. This was exemplified in a remarkable manner in the epidemic which occurred some years since at Prague, and which has been well described by Löschner.

ON PEPSIN:

ITS EFFICACY IN CASES OF DYSPESIA AND IMPERFECT ASSIMILATION.

By WILLIAM MOORE, M.B.T.C.D., M.R.I.A.

Licentiate of the King and Queen's College of Physicians; Physician to the Institution for Diseases of Children, &c., &c.

As Pepsin may be said "to be on its trial" at the hands of the profession in this country, the following remarks, coupled with the details of cases in which the therapeutical value of this agent was pointedly exemplified, may not prove wholly devoid of interest.

M. Boudault's process* for the preparation of pepsin was as follows:—The rennet-bags of sheep were opened and reversed, and washed under a thin stream of water, to free them from alimentary matters. The mucous membrane is

then carefully scraped off with a knife, the cells are bruised in a mortar, and digested for twelve hours in distilled water. The liquid is then filtered, and neutral acetate of lead is added, which precipitates peptate of lead. This precipitate is collected, and decomposed by means of sulphuretted hydrogen. Pepsin is thus liberated in solution, and is separated from the insoluble sulphide of lead by filtration. The filtered liquid represents neutral gastric juice. It is, however, necessary that it should be acid, and for this purpose lactic acid is added until the liquid exhibits the same degree of acidity as a specimen of gastric juice obtained from the stomach of a dog by means of a fistulous opening. If the artificial gastric juice thus obtained be evaporated to dryness at a temperature not exceeding 100° Frht., a gummy mass is obtained, which attracts moisture from the air, and is altogether a very unfit article either for sale or administration. In order to reduce it to powder, M. Boudault simply evaporates his artificial gastric juice to a syrupy consistence, and to this he adds dried starch, in such proportion that one gramme shall be capable of digesting four grammes of dry fibrin, when the two are submitted together, in the presence of water, to the temperature of the human body. The substance thus produced is a fawn-coloured powder, cohering somewhat together, and possessing a peculiar taste and odour. It yields to water the lactic acid and the pepsin, producing a solution of a yellowish tint, with the colour, odour, and taste of gastric juice. M. Corvisart, to whom we owe this valuable agent, having endeavoured to ascertain the most agreeable mode for administering it to children, had a syrup of cherries prepared, with pepsin as the base. This pharmaceutical form being found faulty by M. Berthé, owing to the reaction excited between sugar and pepsin, he adopted the following form of lozenge.† A firm paste is made in the usual way, with mucilage of gum arabic, and aromatized with a few drops of essence of lemon. When the mass is perfectly homogeneous, four grains of amylaceous pepsin are added for each lozenge. The mass is then divided in the ordinary manner, and the lozenges placed in a stove heated to from 77° to 86° Frht. Desiccation, under these circumstances, takes place very rapidly, and the lozenges obtained, which are very agreeable to the taste, do not attract moisture. Pepsin may be given in the form of powder or wafer before meals; or in some cases where it seems to excite slight nausea, it is better borne immediately after meals. The lozenge or wafer, as recommended by MM. Corvisart and Boudault, is the most agreeable form for its administration.

The first case I shall cite was that of William D., aged 16 years. He complained of acute pains over the chest, particularly at the posterior and lower part of the left lung. He was anæmic and

* Dr. Squire, in *Pharmaceutical Journal*.

† *Journal de Médecine de Bruxelles*.

languid, had total loss of appetite, and a short cough in the morning, with free expectoration. There was no dulness on percussion, or physical sign of disease of the lungs. After the exhibition of cod-liver oil and various remedies, without any apparent good effect, the pains in the chest still recurring, with anorexia and loss of flesh undiminished, Dr. Stokes proposed the administration of pepsin, in ten grains for a dose, to be taken during dinner. The change, at the end of eight days, was decided: the patient's appetite was restored; he gained flesh; the pains in his chest gradually abated in frequency and severity; and he is now, at the end of about ten weeks, a large, stout boy.

This was one of those cases in which it was difficult to define with certainty the character of the pains in the chest. That they were pleuritic I have little doubt; but the anæmic condition of the patient, with loss of flesh and inertia in a lad of his years, coupled with his family history, although there were no physical signs of pulmonary disease present, gave sufficient cause at least to suspect the advent of phthisis. His diet all along was nourishing, with brandy and new milk in the morning; but it seemed of little, if any avail, till the exhibition of the pepsin, which, as if by giving a fillip to the digestive powers, turned it to account.

The second case was that of a lady aged 21 years, of a nervous and excitable temperament. She complained of pain, on taking a deep inspiration, at the superior angle of the left scapula. This had supervened on a cough of some months' standing. There was anorexia, loss of flesh and spirits. Various remedies were exhibited, with generous diet, change of scene and air, but without any decidedly good effect. Sir Henry Marsh suggested the employment of pepsin in gr. xii. doses daily. This treatment was persevered in for a month, with dry cupping over the left lung, and the occasional application of the acetum cantharidis over the painful part. The improvement in the appetite was decided, from the first exhibition of the pepsin, which amendment, though gradual, was confirmed in every other respect. In this case, although we were unable to detect any physical signs indicative of latent phthisis, still the character of the pain, supervening on a cough of long standing, coupled with dyspepsia, loss of appetite and flesh, naturally excited cause of alarm.

I need not give the details of other cases in which the effects of pepsin were very satisfactory. Of late I have frequently prescribed it at the Institution for Diseases of Children, where the patients were weak, puny, and emaciated, after an attack of remittent fever, bronchitis, or other acute disease. The dose varied from gr. ii. to v., according to the age of the child. I generally gave it twice daily—after breakfast and before dinner; and on the whole its effects seem to me conclusive, as regards its digestive properties. No doubt there were some cases in which its effects were not appreciable, but such exceptional cases tend rather

to prove the rule. The rationale of its action is explained by M. Boudault, who concludes that pepsin is secreted in the neutral state, but that it is to its action as a ferment that the gastric juice owes its property of converting glucose into lactic acid. On the other hand, he proved that pepsin alone—that is, in the neutral state—cannot affect digestion; it is only when glucose is changed into lactic acid that digestion can take place. Hence the sequence will be, the salivary diastase transforms the amylaceous principles of the food into glucose, which is conveyed into the stomach; there this glucose meets with all the elements necessary to its change into lactic acid, and especially pepsin, the principal agent in this modification, whence results the formation of gastric juice, and consequently digestion. In dyspepsia with impaired digestion, and where we may have reason to suspect latent phthisis, the beneficial effects of pepsin are exemplified. Again, in cases of young persons and children recovering from acute disease, in whom the digestive participate in loss of tone with the other functions, it acts as a wholesome stimulant. My experience of it would lead me to infer that, generally, its action is that of a decided stimulant to the digestive powers; and when its administration is conjoined with a generous regimen and tonic treatment, it turns such adjuvants to account, by this means anticipating the accession of phthisis or other organic disease, which a reduced state of the system would readily call into action.

As regards its nutritive qualities *per se*, I should not be inclined to lay much virtue at its door.

Dr. Lees, in his valuable book on Diseases of the Stomach, recommends pepsin when there is a disgust for food, and when pain or uneasy sensations are experienced after meals, depending on deficiency of gastric juice. In many cases it may be judiciously combined with sedatives or tonics—as morphia, iron, bismuth.

The dose of pepsin for an adult may vary from ten to fifteen grains; for children up to ten years I should not be inclined to exceed five grains; and up to five years of age, three grains for a dose. It may be taken before meals, in soup or any simple fluid, or in the form of wafer; but in many cases it is better borne during the course of, or after meals. If taken before meals, food should not be taken afterwards at a higher temperature than 45°, else the digestive properties of the pepsin will be lost.

The "liquor pepticus preparatus" may be given in 3j. dose to an adult. Beef-tea or whey is the most suitable vehicle for its administration to children.

RUSSIAN AND FRENCH MEDICAL OFFICERS IN THE CRIMEA.—It appears from statements made by the *Medical Gazette* of Russia, that 382 medical officers attached to the Russian army died during the Crimean war. The actual number of such officers employed is not mentioned. In the French army, 550 surgeons went to the East; and 83 of these perished—viz., 1 in 6.

CASES OF PNEUMOTHORAX, WITH OBSERVATIONS.

By SAMUEL GORDON, M.B.,

Physician to the Richmond, Whitworth, and Hardwicke
Hospitals.

CASE I.

*Phthisis Pulmonalis.—Chronic Pneumothorax.—
Death from Acute Pleuritis.*

(Case noted by MR. FAGAN.)

Mary Dunne, æt. 30, was admitted into the Whitworth Hospital on the 23rd of December, 1857. She gives the history of chronic phthisis, commencing imperceptibly, but extending over several years. She has been laid up several successive winters with cough and dyspnoea; has had frequent hæmoptysis, pains in the chest, and night perspirations. About two years ago she had an attack of unusual severity, commencing with rigors, and followed by very profuse perspirations, but without any increase of cough, or difficulty of breathing, and not accompanied by any sudden pain or stitch in either side. After this she considered that she was rather improved: the cough became much reduced, both in frequency and severity; the hectic symptoms, which she described as being before this time very persistent, now remitted; and she became altogether more comfortable. About a fortnight ago, in consequence of remaining with wet feet for some hours, she caught cold, and was attacked with pain and weight in the chest, referred to the sternum; headache, severe cough and difficulty of breathing, and loss of appetite. On admission, in addition to these symptoms, her skin was hot; pulse very quick; tongue slightly furred. In the subclavicular region on the right side, percussion elicited, in a most marked manner, the cracked-pot sound; and cavernous respiration was here audible, with pectoriloquy, and loud gargouillement on coughing; the remainder of this side sounded clear on percussion; and sonorous and sybilous râles were audible, with occasional large soft crepitation. The upper part of the left side was abnormally clear on percussion. Amphoric breathing was here audible, with metallic resonance of the voice. The lower portion of the side was dull on percussion, and the breathing was of the bronchial or tubular character. There was no metallic tinkling; no splashing sound on succussion. The heart was displaced towards the right side, and the left side was, on measurement, half an inch larger than the right.

It was inferred that a phthisical cavity existed at the summit of the right lung—that it was in close approximation to the walls of the chest, no vesicular structure intervening; that bronchitis of the right lung existed, and that the inflammation probably extended to the walls of the cavity; that on the left side air existed in the cavity of the pleura, with a very free communication between

the pleura and a large bronchial tube; that no fluid existed in the cavity of the pleura; and that the left lung was not totally compressed by the pneumothorax.

It is scarcely necessary to review the grounds on which this diagnosis was formed. The existence of the cracked-pot sound—although now known not to have the *pathognomonic* value assigned to it by Laennec—in connection with the general symptoms, and physical signs of pulmonary phthisis, is sufficiently diagnostic of a cavity with solid walls having free communication with a large bronchus. The symptoms from which the patient was suffering were clearly those of inflammation of the bronchial mucous membrane. She had pain and sense of weight in the chest, referred to the sternum; frequent and distressing cough, with copious puriform expectoration; hot skin, quick pulse, with the physical signs of bronchitis. The great amount of expectoration in the *early* stage of the bronchial inflammation, combined with the physical evidences of accumulation of fluid in the pulmonary cavity, rendered it probable that great part of the expectoration came from this quarter; while the moist crepitating râle heard through the lung, coupled with the previously-existing phthisical symptoms, assigned to the bronchitis a tubercular origin.

The non-existence of the usual history of pneumothorax, the comparative absence of dyspnoea, and the want of reference of pain or any uneasy sensation whatsoever to the left side, combined with the physical evidences of the existence of a large cavity distended with air, and communicating with a large bronchial tube, rendered it probable that the left lung was also the seat of a very large cavity, particularly when we know the great size which these cavities sometimes attain;* but the existing signs—viz., tympanitic resonance on percussion, loud amphoric breathing, and metallic character of voice and cough, coupled with the facts of a displaced heart and enlarged left side, proved it to be the seat of a pneumothorax; while the absence of metallic tinkling, splashing sound on succussion, or dulness varying in its locality by the position of the patient, showed that the affection was a pure pneumothorax, unattended with any effusion of fluid into the cavity of the pleura. The amount of respiratory murmur which was audible over the left side showed that the lung was not totally compressed by the air. The surmise was not tenable that the respiratory murmur which was audible was transmitted from the right lung, for it was different in character—the expiratory murmur being more audible wherever any form of respiration was heard; and the signs of bronchitis, so evident on the right, being inaudible on the left side.

* For a case of a cavity occupying the entire extent of one lung, mistaken for a case of pneumothorax, see *Lancet*, Jan. 1, 1848. It occurred in the practice of M. Gendrin, in the Hôpital de la Pitié, and is translated from the *Gazette des Hôpitaux*.

The application of a few leeches to the chest, followed by warm soothing fomentations, completely removed the pain and sense of weight from the chest. Very minute doses of mercury, with extract of lactucarium, with saline draughts and cooling diet, removed the cough and febrile symptoms; and eventually tannic acid almost completely arrested the expectoration, and restored her appetite. In less than a week she was convalescent. All signs and symptoms of bronchitis had disappeared, and she was again in as good health as she had enjoyed for some time. On the morning of January 19 she sat for some time under an open window, and was seized with a rigor; it was not sufficiently severe to induce her to lie down. She ate her dinner as usual, but soon after she became very ill, vomited, complained of difficulty of breathing, and great coldness, which could not be removed, and she died in the course of the night.

Post-mortem examination showed that the cause of the death was acute pleuritis of the *left* side. The entire thoracic pleura was covered with a layer of very thin, creamy, purulent effusion. It had not so completely covered the surface of the lung. It was extremely soft, as if laid on with a brush, and had not at all encroached on the cavity of the pleura, which was completely devoid of any fluid effusion.

Before opening the cavity of the chest, percussion elicited the cracked-pot sound at the apex of the right lung, and tympanitic resonance all over the left side anteriorly. When the left side was punctured, air escaped. Great portion of the right lung adhered to the side, the apex intimately so. There was a cavity in this situation capable of holding a pullet's egg; it was lined by a very strong membrane, and a large bronchial tube opened into the floor of it. The pulmonary structure around it was invaded by strong bands of fibrous structure. The cavity in the lung was evidently closing in from below upwards. Externally and internally the abnormal structure was thickest, being here demonstratively composed of the upper and lower walls of the abscess joined together. There were several tubercles scattered through the lung, some of them soft and pultaceous, others also of soft consistence, but gritty; and one or two quite hard. The condition of the left pleura has been already described. The left lung was about one-fourth of its normal size, and lay towards the postero-inferior part of the pleura. It was the seat of four fistulous orifices in different places, each of large size (No. 6 catheter easily entered them), communicating directly with a large bronchial tube; their edges were rounded and smooth, and inverted. There were a few tubercles scattered through this lung also.

The above may be looked on as a case of *chronic* pneumothorax, in which the physical requirements for this disease took place without the

existence of any symptom which could mark the time of their occurrence; and, having been established, the disease does not appear to have at any time caused even great inconvenience, much less the amount of pain and suffering which is usually attributed to it. We are warranted, therefore, in dividing cases of pneumothorax into *acute* and *chronic*. It is a truly practical division. The symptoms of each are totally different, as is also the treatment required; and the result or consequences are also at variance. Pneumothorax ushered in with acute pain and collapse usually runs a short course, and is generally fatal. Chronic pneumothorax may exist for years, and, moreover, is ordinarily followed by a most opposite train of circumstances; so that whereas in *acute* pneumothorax we date the rapid downfall of the patient from the moment of its occurrence, in the *chronic* form we have usually no means of fixing its occurrence, except in the disappearance of many distressing symptoms which before existed, and in the recovery of a degree of health to which the patient was long a stranger. Such was the case in the present instance. After being long harassed with cough, frequent hæmoptysis, and the well-known symptoms of a tubercular hectic, these symptoms began rapidly to decline, at a time when they were not subjected to treatment; and of late the patient spent a comparatively comfortable time, until the bronchitic attack interrupted it. Such is also the case in a patient, the subject of chronic pneumothorax, the particulars of whose illness I detailed some years ago.* I need not here enter into the minutiae of this case; suffice it to say that it is one of pneumothorax, known to be now of four years' duration, unaccompanied with fluid in the pleura; and that the patient, although a valetudinarian, is able to manage her household affairs, and her usual amount of health is no longer subject to the frequent interruptions which it formerly had to encounter.

This suspension of the progress of the phthisical symptoms will not be wondered at by those who are familiar with the *post-mortem* appearances which are found in these cases: the lung on the affected side compressed, cavities which may have existed closed up, tubercles which were undergoing a process of softening reduced to a quiescent state, bronchial tubes occluded, and bloodvessels obliterated, will at all events suffice to check the progress of disease, if, indeed, they do not, as alleged by some, render the lung insusceptible of further tubercular deposit. While such is the effect of a pneumothorax on the lung immediately submitted to its influence, it no doubt possesses also a certain influence on the progress of phthisis in the opposite lung, although the *modus operandi* may not be so obvious.

The first condition requisite for the elimination

* Vide *Dublin Quarterly Journal of Medicine*, vol. xvii. p. 340.

or cure of tubercular deposit appears to be, that it should be kept in a state of quiescence. This is sufficiently accomplished in the compressed lung by the state to which it is mechanically reduced; but in the opposite lung the same thing is accomplished in a very different manner—namely, by withdrawing the supply of blood, or lessening the capillary hyperæmia which surrounded these tubercular deposits. Before the occurrence of the pneumothorax, the enfeebled respiration was probably equally diffused through both lungs, but after its occurrence the entire labour of respiration is thrown on one lung. Notwithstanding the diminution of capacity of the side, as evidenced by measurement, portions at least of the vesicular structure of the lung expand, as evidenced by the existence of puerile respiration where before it was inaudible, and increased sonority on percussion, where before there was comparative dulness; and to these distended air-vesicles is now appropriated the supply of blood which formerly was expended in keeping up the sub-inflammatory process which surrounded the tubercular deposits.

The effect of the quiescence of tubercle, as produced by this disease, gives us a very important hint as to the great advantages to be expected, in the treatment of phthisis, from such measures as are most likely to control the pulmonary irritation. The removal of the capillary hyperæmia from the tubercular deposits, goes far to insure the occurrence of the second requisite for their elimination—namely, their slow degeneration. In the present instance there were several, evidently progressing most favourably to a cure. Such, then, is the mode in which chronic pneumothorax acts favourably on lungs affected with tubercle or other irritative disease.

With regard to the fibroid degeneration which existed through the right lung, I looked upon it as aiding in the curative process which was in progress. It was produced by a very low form of inflammation, which was already successful in closing up part of the cavity which existed at the apex of the lung, and which would doubtless have completed its cure, had life been spared. It had also been successful in closing up two small tubercular abscesses, which had existed in the interior of the lung.

It remains only to advert to the cause of this patient's death. The symptoms with which she was attacked were exactly those which would arise from a severe shock to the system; in fact, such as occur after a severe burn, or some similar cause for great constitutional irritation; and they were in themselves so severe, and fell on so debilitated a constitution, that it yielded without being able even to rise out of the stage of collapse. The length of time during which the surface of the pleura had been freely exposed to the atmospheric air had very probably made such alteration in its minute anatomical disposition, as to assimilate it more or less to a mucous membrane; and hence

the reason why the inflammation which attacked it was evidenced by the effusion of purulent matter, rather than the normal effusion of organizable lymph.

The next case will, in some respects, form a remarkable contrast to the above.

CASE II.

Chronic Diabetes.—Typhoid Pleuro-pneumonia.—Acute Pneumothorax.

(Case noted by MR. SCOTT.)

Bernard Jukes, æt. 40, was admitted into the Hardwicke Hospital early in January, 1858, labouring under an attack of simple fever, from which he recovered in a few days. It was then discovered that he had for some time been labouring under well-marked symptoms of diabetes, and he was treated for this disease. He had no cough, nor any symptom of thoracic disease, and a stethoscopic examination failed to detect any sign of it. On the 21st he complained of having caught cold; said he was much weaker than usual, and asked to be allowed to remain in bed. On the 22nd he was very much prostrated; complained of some pain in the right side; his respiration was short and rapid, although he did not complain of cough or dyspnoea. There was some dulness over the right side of the chest posteriorly, with slight bronchial breathing. On the 23rd he complained of sudden violent stitch in the right side, and had intense dyspnoea, with extreme collapse. He partially recovered out of this state, and it was then found that the right side was tympanitic, and that there was no respiration audible, except near the spine. With such history of the case, and such physical signs, it was scarcely possible to doubt the existence of a pneumothorax, particularly when the side was dilated and the diaphragm depressed; but there were present none of the auscultatory signs usually considered characteristic of this disease—amphoric breathing, or the metallic phenomena; and a loud pleuritic frotement was audible over the cartilages of the ribs on the left side. Notwithstanding the administration of very large doses of opium, the patient continued to suffer great pain, and survived for twenty-four hours, the physical phenomena remaining unaltered.

Post-mortem examination.—The right pleura contained a great quantity of air; the right lung was reduced to about one-fourth of its proper size, and was compressed towards the spine. There was no fluid in the pleura, but its entire surface, both costal and pulmonary, was covered with large patches of soft yellow lymph; the upper and posterior portion of the lung was the seat of a very large rent about three inches long, and about the same width at its lowest part; very narrow above. The pleura around this rent was of an ashy grey colour, and through it protruded the pulmonary structure in loose shreds; the lung

in its immediate vicinity was in a state of gangrenous suppuration. The upper portion of the left lung was emphysematous; the lower portion in a state of cadaveric congestion. (*Richmond Hospital Museum.*)

The debilitated condition of this patient, which was induced by the long-continued, most depressing illness to which he was subject, was doubtless the cause of the pulmonary attack assuming the typhoid disposition which characterized it. These characters were sufficiently well marked in the sudden depression of the already reduced vital powers; the absence of cough or expectoration (which signify that the vital depression is so low, that the pulmonary irritation, although considerable, is not able to produce any reflex action), combined with dyspnoea, and the abnormal collection of physical signs.

This typhoid inflammation appears to have engaged the pleura also, and on this membrane giving way, a free communication was established between the interior of the lung and the cavity of the pleura. Repeated examinations were made in this case for the auscultatory phenomena indicative of pneumothorax, but they did not exist. We must presume, therefore, that for the existence of amphoric breathing, it is necessary that the air should pass from the lung through a *small* aperture into the cavity of the pleura.

It remains only to account for the pleuritic frottement which existed on the left side. *Post-mortem* examination showed the surface of the left pleura to be perfectly smooth and glistening, therefore it was not caused by a pleuritis of the left side. The right lung was compressed and not acting, therefore it was not caused by friction between the costal and pulmonary pleura of that side. It therefore only remains that it must have been caused by friction between two folds of the thoracic pleura of the right side.

This fact is almost conclusive as to the enlargement of the side, at least in pneumothorax, arising from a paralysed condition of the side rather than from mechanical distension. If the latter had been the cause in the present instance, the air would have most fully distended the pleura, and not allowed of any such laxity of the mediastinum as would permit its being rubbed against the posterior part of the sternum and the costal cartilages, by the motion of the left lung. The frottement was synchronous with the respiration, rather than with the action of the heart.

MUNIFICENT BEQUEST.—Mr. Benjamin Sutton, of Leicester, who died recently, having observed that patients, on their discharge from the County Infirmary, were often reduced to circumstances of deep distress, has bequeathed a sum of about £30,000, that, in all cases where it may seem desirable, the authorities of that institution may give a sum, not exceeding £5, to such patients as they shall think fit objects; the relief, in all cases, to be in money.

Proceedings of Societies.

BELFAST CLINICAL AND PATHOLOGICAL SOCIETY.

January 16th, 1858,

The PRESIDENT in the chair.

Dr. GRAVES, V.P., read a paper on a new mode of treatment which he had employed in cases of abscess of the superficial glands of the neck. (See DUBLIN HOSPITAL GAZETTE, page 57.)

Dr. RUSSELL, of Bangor, presented a small warty excrescence which he had excised from a man's uvula. Mr. BROWN exhibited a similar specimen in the early part of the season. Dr. HALLIDAY referred to a growth from the same part, which he lately met with in a partially detached, and apparently sphacelated condition.

Mr. MULHOLLAND showed a small brass button which he had removed from a child's nostril, after it had remained there for thirteen months, and had induced fistula lachrymalis.

The PRESIDENT showed the anterior portion of the right cerebral hemisphere of a boy, aged 13, who was admitted into hospital three weeks before his death, with a fracture of the cranium over the right temple. He was then labouring under symptoms of concussion. His pulse was 120 the first night; afterwards falling to 100. The integuments were unbroken, but there was a movable portion of bone at the site of injury. In four days, under the employment of mercurial treatment, he began to exhibit returning consciousness, and subsequently seemed to recover completely from the effects of the accident, manifesting at no period, either paralysis, rigidity of the muscles, or intellectual disturbance. On the lapse of a fortnight, however, there was a recurrence of feverish symptoms, and forty-eight hours after, being seized with rigor, he died comatose. A portion of the internal plate of bone, of about an inch in length, at the seat of the fracture, was found depressed one-eighth of an inch, and projected against the dura mater. An irregular cavity, containing thin ichorous matter and surrounded by clotted blood, occupied the subjacent portion of brain.

January 23rd,

The PRESIDENT in the chair.

The PRESIDENT presented a boy who had received a gunshot wound in the late riots. The ball had entered in front of the masseter muscle of the left jaw, and made its exit behind the sternomastoid muscle of same side, passing in its subcutaneous course, close to, if not actually opening, the sheath of the great vessels. The carotid felt quite exposed by the finger introduced through either aperture. There was very trifling suppuration, and the wound healed without surgical interference.

Dr. MOORE showed a tumor of irregular form,

but as large as an orange, which he had removed from the thigh of a man, æt. 45. It was of fourteen or fifteen months' growth, had increased rapidly of late, and was, in Dr. Moore's opinion, of a malignant nature: appearing fixed when the limb was extended, it became movable upon flexion. On exposure it was found superficial to the *facia lata*, but partially adherent to the inner edge of the sartorius muscle, and the saphena and femoral veins were laid bare by its excision. It presented, on its removal, the appearance of a congeries of varices, seeming to consist of a fibroid blastema, including cells or cysts, which contained a quantity of dark greenish matter. (A tumor of this kind is described by Paget, p. 46 of his work on tumors.) The adjacent glands were unaffected, and the wound has healed by the first intention.

Another tumor was also exhibited by Dr. Moore of fibro-cartilaginous character, which he had removed from the right side of the hard palate of a mulatto woman. It was of many years' formation, had never been painful, nor induced other inconvenience than partial stoppage of the corresponding nostril. On her admission into hospital, the woman was in a feeble state of health, and attempts were accordingly made to strengthen her by nutritious food and tonic medicines before proceeding to operation. Chloroform was employed in the preliminary incisions, which were made through the angle of the lips. A bicuspid tooth was extracted to admit of the working of the saw, and a chisel and mallet afterwards employed to detach the alveolar portion of the maxilla, from which the tumor sprang, and which was removed with it. Copious hæmorrhage occurred, both during and after the operation, and was restrained at the latter period by the actual cautery. A compress of lint was left in the wound, and there was no return of the bleeding.

Dr. MOORE also presented for inspection the tibia of a lad, fractured in several places by the passage over it of a railway train. The boy had fallen asleep with his legs across the line, and whilst one of them had suffered a comminuted fracture, the other had undergone a compound dislocation of the ankle joint, and an extensively lacerated wound of the soft parts. The former limb was amputated by Dr. Moore soon after the accident; but the latter, though so severely injured, has been preserved, and now manifests a wonderful degree of strength and efficiency.

January 30th.

The PRESIDENT in the Chair.

Dr. DILL read the following case of

Irritable Uterus.

Isabella Farrell, aged 25, unmarried, has been ill for upwards of a year. She complains of pain in the abdomen, over the hypogastrium, and in the back and loins, varying in intensity, but from

which she is never quite free. It is greatly increased when in the erect position, or in moving, and she expresses herself as easier in the recumbent posture; yet although she has retained this for a considerable time, she is still subject to recurrences of more than ordinary suffering; in other words, paroxysms of pain occur. The menstrual discharge returns regularly, and neither in quantity nor quality has it varied from the ordinary standard. When she came first into hospital there was some leucorrhœa, which has since ceased. A vaginal examination was made at different times, but no organic disease discovered. The cervix and body of the uterus were somewhat swollen and tender, but the os did not appear to be indurated. Dr. DILL then distinguished the disease from dysmenorrhœa, by the constancy of the pain; from prolapsus, by the state of the parts; and from inflammatory or malignant disorder, by its persistence for so long a period without aggravation. He considered it to be a case of irritable uterus, as described and designated by Dr. Gooch. Dr. MURNEY stated that the woman had been at one time under his care, for hysterical affection of the knee-joint, which fact, he thought, threw some light on the nature of her present disorder. Dr. HALLIDAY observed she had been a patient of his also, with the same symptoms as she now exhibits, but that neither from a tonic nor an anti-phlogistic plan of treatment had she seemed to derive any benefit.

Mr. JOHNSTON presented a child, three years old, in whom scarlatina had been followed, after the lapse of a fortnight, by extensive swelling of the neck, together with the formation of a large post-pharyngeal abscess, protruding over and pressing on the base of the tongue. Some purulent matter apparently exuded from this whilst being examined; and Mr. Johnston alluded to the possibility of *sudden death* from suffocation being sometimes occasioned by the rupture of such abscesses during sleep, without the cause being suspected.

Dr. MURNEY exhibited a hypertrophied labium which he had removed from a woman who had, five or six years before, been affected with syphilis. He remarked upon the subjects of that malady being almost exclusively liable to this local disorder. The other labium of this woman had been formerly excised by Dr. Moore.

Dr. DILL exhibited a heart, the left ventricle of which was somewhat hypertrophied, and the mitral valve ossified and greatly contracted. The man (aged 21) from whom it was taken was received into hospital a few days before. On admission, there was much dyspnœa, with troublesome cough. The veins of the neck were turgid, and the lips and face very livid. The action of the heart was found to be tolerably strong, but the pulse at the wrist was very soft and feeble. Ascites and general anasarca were present to a great extent, and had existed for several weeks. He had enjoyed good health until about two years

ago, when he was attacked by what his friends called rheumatic fever, from which he made such a recovery as enabled him to return to his work as a labourer. Afterwards he had what they called attacks of the chest, and the one from which he sank about twenty-four hours after reaching hospital, came on about five weeks since. Percussion indicated very extended dulness over the præcordial region. A very rough bellows-murmur with the first sound, was heard loudest over the apex and to the left side of the heart. These signs were sufficient for the diagnosis that there was hypertrophy, and that the mitral valves were diseased. The *post-mortem* verified the diagnosis.

Selections from Recent Contributions TO PHARMACY AND MATERIA MEDICA.

Syrup of Protocarbonate of Iron.—The facility with which protocarbonate of iron dissolves in organic acids, and its perfect harmlessness in irritable subjects, render it one of the most valuable agents in therapeutics; accordingly, all the new preparations into which sugar has been introduced, for the purpose of giving stability to this saline compound, have been adopted in practice.

M. Dannecy, a distinguished pharmacien in Bordeaux, having ascertained that the precipitate of protocarbonate of iron, obtained by mixing sweetened and boiled solutions of carbonate of soda and of protosulphate of iron, possesses the singular property of dissolving in simple syrup without becoming coloured, conceived the idea of thus preparing a new ferruginous syrup.

This preparation, being permanent, will be employed in cases in which the form of syrup is preferable to that of pills; for example, in the treatment of children.

The following is the process for making M. Dannecy's new preparation:—Take of purified protosulphate of iron, two ounces; distilled water, sixteen ounces; white sugar, two ounces; dissolve with ebullition, and filter. Secondly, take of crystallized carbonate of soda two and a half ounces; distilled water, sixteen ounces; white sugar, two ounces; dissolve with ebullition, and filter. When the two solutions have cooled, mix them in a glass vessel, and shake for a moment; a precipitate is formed, which is at first white, but soon becomes of a greenish-grey colour, preserving this shade. Allow this precipitate to collect during twenty-four hours; decant. Afterwards take a solution of sugar, in the following proportions:—white sugar, two and a half ounces; distilled water, ten ounces; dissolve with ebullition, and filter. Add the precipitate to this saccharine fluid when cold; set it aside to rest; decant. Repeat this process once more, in order to remove the sulphate of soda resulting from the double decomposition. This washing ought to be accomplished as quickly as possible, to prevent the unnecessary solution of the ferruginous precipitate. Subsequently, agitate this precipitate, from time to time, in a fresh portion of saccharine solution (water, ten ounces; sugar, two and a half ounces). It will dissolve in the course of some days. Lastly, take of white sugar thirty-eight and a half ounces; distilled water, nineteen ounces; add the saccharine ferruginous solution, and boil to specific gravity 1.262, at the temperature of ebullition; flavour with tincture of lemon or orange. The product will be sixty-four ounces of almost colourless and perfectly clear syrup of protocarbonate of iron, containing 9.90 per cent. of oxide of iron.—*Bulletin Général de Thérapeutique*, 15th Feb. 1886, p. 112.

[It is evident that if the syrup above described really possesses the stability and composition assigned to it, it must prove a most valuable preparation.]

Glycerine a proposed substitute for Oils and Fats in Ointments.—Mr. G. F. Schacht proposes to substitute for oils and fats in ointments a "plasma," prepared by mixing one fluid ounce of glycerine with seventy grains of starch powder, and heating the mixture gradually to about 240° F., constantly stirring. There appear, however, to be numerous objections to the proposed substitution, among the principal of which are, the difficulty of procuring a sufficient supply of pure glycerine, the liability of the "plasma" to absorb moisture, and lose its original consistence, and the questionable effects of starch upon the skin in certain cases.—*Pharmaceutical Journal*, Feb. 1886, p. 400.

Iodide of Lime.—This preparation, made with one part of iodine and seven of lime, is recommended by Dr. Pidduck as superior to the iodide of potassium—in the comparative smallness of its dose; in its ready combination with the blood and tissues, manifested by its alterative effects; in not passing so quickly through the kidneys; in not producing gastro-enteric and vesical irritation; and in being nearly tasteless. Dr. Pidduck uses a solution of one drachm (containing eight and a half grains of iodine) in a pint of boiling water, which, when cold and filtered, is colourless and transparent. The iodine is found to exist in the solution in the form of iodide of calcium and iodate of lime.—*Ibid.* p. 404.

New Preparation of Bark—Quinum.—(the Alcoholic Extract with Lime of M. A. Labarraque, of Havre).—The objects of the investigations of M.M. Delondre and A. Labarraque, which have led to the adoption of the above preparation, were—

1. To find a preparation admitting of the use of all the cinchonas which contain, at the same time, quina and cinchonina in considerable proportion, and these are the most numerous. M. Soubeiran, in his course of pharmacology, observes that the association of cinchonina with quina presents, in many cases, important advantages, and that the two febrifuge bases are complementary to one another in a therapeutic point of view.

2. To obtain uniformity in the product by an easy and strict proportionment of the febrifuge alkaloids, thus practically applying, in the most useful manner, the discovery of Pelletier and Caventou.

3. To preserve all the useful products of the cinchonas by removing only the inert matters which interfere with the easy absorption of the active principles, and oppress the digestive organs.

4. To establish a proportion of quina and cinchonina, similar to that found in the cinchona, which the experience of all ages has shown to be the most efficacious, the bright red cinchona, which is at present scarcely employed, on account of its very high price.

5. To simplify operations, so that nothing may be lost, and so as to afford the best febrifuge at the lowest possible price.

The question of price is, in fact, very important in dealing with a dear medicine, the use of which ought to be continued, and which is most frequently necessary for the poorest country labourers.

The following is M. Labarraque's formula, as it has been adopted by the Académie de Médecine, and entered in their Bulletin.

Formula for the alcoholic extract of cinchona by means of lime.—Take cinchona barks of known composition; mix them in such quantities that the quina may be present, relatively to the cinchonina, in the proportion of two parts of the former to one of the latter.

Pound the barks; mix the powder with half its weight of slaked lime; heat the mixed powder with boiling alcohol until the barks are exhausted; collect the greater part of the alcohol by distillation; complete the evapo-

ration. The residue is the alcoholic extract of cinchona by means of lime.

Seventy grains of this extract ought to yield, by the ordinary processes, fifteen and a half grains of sulphate of quina, and nearly eight grains of sulphate of cinchona.

Pills of Quiniam.—Two and a half grains of quiniam in a pill represent one-third of their weight of febrifuge alkaloid. Thirty of these pills, which are sold for about fifteen pence, suffice in the majority of cases for the cure of an intermittent fever; from five to ten are given in the twenty-hours, as far as possible from the approaching paroxysm. Half a glass of wine is taken after each dose.

Wine of Quiniam.—This wine, which may be of great use as a tonic, as a febrifuge, and in preventing the return of obstinate intermittent fevers, is prepared by M. A. Labarraque by dissolving seventy grains of quiniam in twelve times its weight of alcohol, adding thirty-five ounces of good white wine, and filtering. The wine contains about twenty-three grains of the alkaloid in thirty two ounces; the dose is from an ounce and a half to three ounces as a tonic, and from three to six ounces as a febrifuge.

The following are M. Bouchardat's observations in his "*Traité de Thérapeutique et de Matière Médicale*," on the comparative advantages of the sulphate of quina and quiniam:—

"Whenever it is necessary to cut short a paroxysm surely and quickly, sulphate of quina will always have the superiority over all the other preparations of cinchous; none of them, not quiniam itself, can be compared to it for this marvellous power. For this reason no substitute is to be found for it when we have to deal with essential paroxysms. But when it is our object to cure a fever of long standing, surely and without shocks to the system, quiniam resumes its supremacy.

"In treating intermittent fevers in an hospital or in a healthy locality, remote from the foci in which these fevers have originated, the expectant system alone (as M. Chomel had so well established for the hospitals in Paris, and as M. Lavernay has verified in those of Blidah) suffices in the great majority of cases; sulphate of quina is, under these circumstances, the most valuable adjuvant; it still shows in these special instances its incontestable superiority, in quickly and effectually relieving the patients from the intermittent fevers which tormented them.

"But it is when the patients remain in the localities, and under the conditions in which they have been attacked by the fever, that the remedy which subdues the disease without disturbing the system, in its turn resumes its superiority.

"It is in fever countries, in the midst of the causes which have given birth to the fevers, when these same causes persist, that all the advantages of quiniam appear. Under such circumstances, M. Vahu has administered it in Algiers, M. Hudellet in Dombes, and I myself in several fever localities in the department of l'Yonne."

To this first testimony borne by M. Bouchardat, we hope soon to add further information on the subject. Quiniam is being largely tried in the cliniques of M. Trousseau, at the Hotel Dieu, and of M. Aran, at the Hôpital Saint Antoine, and these experiments will furnish the opportunity of returning to this important question.—*Bulletin Général de Thérapeutique*, 30th Nov., 1857, p. 450, and *Dublin Quarterly Journal*, Feb., 1858, p. 252.

Formula for the preparation of Anti-asthmatic Cigarettes, by M. Danney, Pharmacien, of Bordeaux.—Some of the properties of stramonium and belladonna— which plants, when smoked, justly enjoy the reputation of relieving asthma, and which are employed with the most undoubted success in the treatment of neuralgia— exist also in plants abounding in nitrates. Thus I have seen patients who had experienced great relief from the

use of the leaves of borage and pellitory—plants containing, as is well known, much nitrate of lime.

The fault which almost all patients find with narcotic plants, smoked in pipes or in the form of cigarettes, is a copious production of smoke, which fatigues them, and sometimes excites cough—a symptom they are, on the contrary, employed to allay.

In order to obviate this inconvenience, I have added nitre to the leaves of belladonna and of stramonium, by watering these plants, dried and conveniently spread out, with a solution of nitrate of potash, in the proportion of three ounces of the salt to rather more than two pounds avoirdupois of the plants. It will be easily understood, that as this solution penetrates the entire vegetable tissue, the latter will, when dry, burn completely, without the formation of the pyrogenous products above alluded to.

I have for many years prepared cigarettes according to this formula, and the benefit derived from their use by a great number of patients induces me to publish it, and to call the attention of practitioners to this mode of treatment, consisting in the smoking of narcotic plants combined with nitre.

New Caustic Pencil, modifying the tissues in different degrees.—*Double Salt of Nitrate of Silver and of Soda.*

—M. Brun, in the *Gazette Médicale de Lyon*, proposes the use of the above double salt, in varying proportions, in order to obtain the modifying, in contradistinction to the caustic or destructive, effects of nitrate of silver upon the tissues, in cases in which it is necessary to confine this action to a circumscribed point—as, for example, in chronic inflammation of the urethra, where the disease is localized—as in irritations of the prostatic region, in spermatorrhea, neuralgia of the neck of the bladder, &c.—in which injections would irritate the surrounding sound parts, and consequently dispose to an extension of the evil. For this purpose he has had pencils prepared of nitrate of soda and nitrate of silver, in varying proportions.

The following is the process adopted by M. Livernay, pharmacien, in the manufacture of the pencils:—Dissolve, on the one hand, a portion of nitrate of silver in a sufficient quantity of distilled water; on the other, a portion of nitrate of soda in a like quantity of water; mix these two solutions, and evaporate them to dryness. Place the residue in a capsule, and heat until it be fused; then pour the product into the mould, previously warmed and greased. When cold, a cylinder is obtained, representing a double salt of nitrate of silver and of soda.

This double salt is of a pearly-grey colour, if each of the salts employed was pure; it acquires a brown and blackish tint, if the fusion was too long continued, whether in consequence of the reduction of a small quantity of silver, or of the action of the fatty matter with which the mould was smeared.

The nitrate of silver and soda presents a crystalline and radiated fracture. It is very soluble in water and in boiling water. It is not more brittle than nitrate of silver, and it is more easily cast. Generally speaking, it presents the same characters.

These two salts may be combined in the most varied proportions.

M. Brun has used this double salt, with much advantage, for touching aphthæ of the mouth, for smearing the glans, in cases of balanitis, and for applying to a localised inflammation of the lower eyelid. He sums up its advantages in the following propositions:—

1. It better fulfils the object of the practitioner, where only a modification of the tissues is desired.
2. Its action may be increased or diminished, by varying the relative proportion of the two component salts.
3. It is more easily manipulated.
4. In no case is its use attended with danger.—*Bulletin Général de Thérapeutique*, 30th December, 1857, p. 545.

ON THE ORIGIN AND FORMATION OF
TUBERCLES IN THE LUNGS.

By J. L. C. SCHROEDER VAN DER KOLK.

Translated from the Dutch by*

WILLIAM D. MOORE, A.B., M.B. T.C.D.,

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Norwegian Medical Society.

(Continued from page 62.)

Rokitansky seems to assume increased oxidation as the cause of the tuberculous crasis, at least he says that arterial development of fibrin specially constitutes its principal character,† and that continued oxidation leads to the excessive formation of fibrin.‡ Though I readily agree to the last proposition, still the formation of tubercle is scarcely to be connected with these ideas of higher oxidation.§ And consistent with this, says Rokitansky, is the fact, that in a so-called phthisical constitution the lungs are not smaller, as has, according to him, incorrectly been supposed; but in this case the lungs are in fact more voluminous, as the apparent narrowness of the thorax in its antero-posterior diameter is amply compensated by its greater length.|| How the well known results with the spirometer, which prove the very opposite, can be reconciled herewith, I cannot see; the capacity for respiration in those predisposed to phthisis, in a so-called phthisical habit, seems to be much less, so that even from this diminished capacity of the lungs, indicated by the spirometers, a strong predisposition to phthisis may usually be inferred,¶ which capacity subsequently undergoes a steady decrease with the commencement and progress of phthisis.** In like manner it is generally acknowledged that a capacious, broad chest, with great capacity of the lungs, is the best safeguard against phthisis and tuberculosis.†† Lehmann explains the increase of fibrin in the blood in pneumonia and pleuritis, on exactly opposite principles, by diminished access of oxygen, the fibrin in these

* *Nederlandsch Lancet*, third series, second year, 1852-53, p. 1.

† Loc. cit. p. 522.

‡ Loc. cit. p. 195.

§ It cannot be chemically proved that fibrin contributes anything to the formation of tubercles; for tubercles are, as we shall hereafter see, something very different from coagulated fibrin.

|| Loc. cit. p. 123, and tome III., p. 145.

¶ This will shortly be shown more in detail in the dissertation of my young friend Fabius, who has communicated to me the results of his investigations, whence it would appear, that in general, young people, born of consumptive parents, although themselves perfectly healthy, possess a narrower chest and smaller capacity of the lungs.

** If diminished space for respiration were a preventive against tuberculosis, as Rokitansky, as we shall see, incorrectly asserts of pregnancy, this disease should, in the progress of pulmonary consumption, check itself, and diminish with the degree of consumption of the lungs, whereas the contrary takes place.

†† Tall men have certainly, according to the observations of Hutchinson, a larger capacity of the lungs; but in my opinion, not so much on account of their height, as because more powerful muscles are required in a taller body, in order to move the longer levers. The muscles contain the most blood, and the capacity of the vessels is, as injections have shown me, directly proportioned to the muscular development. Such individuals therefore possess a greater quantity of blood, and proportionally larger lungs, through which this blood must flow. Those of a phthisical habit are not taller, but are more slender, that is, smaller and more delicate; they are less corpulent, less muscular.

diseases being for want of oxygen not sufficiently metamorphosed and burned, or rather not sufficiently reduced to products of lower composition.* As, however, this increase of fibrin is not the constant result of deficient access of oxygen, as in asthma, emphysema, and cyanosis, we must conclude that the irritated condition of the lungs, both in these affections and in consumption, has a very great influence on the composition of the blood, though we cannot fully explain its mode of action.

In like manner, Rokitansky endeavours, on the other hand, to prove the existence of a crasis or peculiar disposition of the blood, by diseases or changes—such especially as those in which the blood is said to be more venous—which should make it unfit for the formation of tubercle. Although I willingly admit that for the occurrence of inflammation and effusion of fibrin a certain composition of the blood is required, and that these plastic effusions or inflammations may be in a great degree promoted or impeded by the composition of the blood, yet I can by no means agree to all the examples adduced by Rokitansky as grounds for this opinion. Thus he says, that in advanced pregnancy, tuberculosis, already existing, is arrested in its progress, and the commencement of tuberculosis is prevented, in consequence of the occurrence of greater venosity of the blood, the result of the diminution of the thoracic cavity. It has, however, been shown, by the experiments of Andral and Gavarret, that while, in women, the quantity of exhaled carbonic acid, from the time of the establishment of the menses, in the fourteenth or fifteenth year of life, to the termination of this period, is constantly the same, and is much less than in man; during pregnancy, as well as on the cessation of menstruation, the quantity of exhaled carbonic acid is remarkably increased†—a circumstance which can certainly not take place without a correspondingly increased assumption of oxygen; whence precisely the opposite result should follow—namely, that during pregnancy the tendency to tuberculosis ought to be increased, because respiration is then more vigorous. I believe that the impediment to the formation and spread of pulmonary tubercles in pregnant women is rather to be accounted for by the transference of increased activity and excitability from the lungs to the uterus, just as, on the other hand, the non-appearance of the menses, and the consequent diminished activity of the uterus, in consumptive girls, is a very unfavourable sign.

It is not, however, my object to follow Rokitansky's theory of blood-crises through all its details; this would lead me too far. I will, I repeat, readily admit that the composition of the blood has a great influence on the origin of various diseases; that the blood, in phthisis, typhus, and scrofula, may deviate more or less from the healthy condition; but I doubt that these abnormalities of the blood are always primary, and especially that the peculiarities of pulmonary tubercles can be explained by such a degeneration of the blood as should render its chief constituents incapable of further development. If the lung is once affected to a certain degree, if the lymphatic system has undergone more or less of morbid degeneration, the preparation of healthy blood can no longer take place, and opportunity is given for the increase of pulmonary tubercles, or for the occurrence of chronic inflammation; but we cannot by any means hence infer the existence of primary crases, which should again be as easily distinguished, as we

* Lehmann, *Phys. Chem.*, Bd. I., p. 370.

† See the *Comptes Rendus* for January, 1848, No. 3, pp. 113 et seq. This has subsequently been confirmed by Dr. Küchenmeister, *Prager Vierteljahrsschrift*, VI. Jahrg. 1849, 2 B., p. 4, who found, by means of the spirometer, a less respiratory capacity after delivery than during the last period of pregnancy. Heer Fabius has communicated to me the same, as the result of his investigations in four cases.

have various kinds of tubercles, the difference of which is more satisfactorily explained by the nature of the tissues and by the situation where they occur, than by a supposed crasis.

If, in the first place, we consider the difference which exists between pulmonary tubercles, we shall find that it by no means confirms the idea of an original crasis. Rokitsansky himself divides pulmonary tubercles into interstitial and infiltrated tubercles.* The first are described as forming in the interstitial tissue, between the most minute lobules and pulmonary cells, and between the wall of the pulmonary cells themselves, and as in this manner compressing the latter.† The infiltrated are said to be deposited in the very cavity of the pulmonary cells.‡

On this I would first of all observe, that the so-called interstitial tubercle never occurs between the walls of the pulmonary vesicles, but only between the lobules. The walls of the pulmonary vesicles, even when these are more or less filled with tubercular mass, always present the appearance of very thin membranes, on whose surface tubercular cells and altered epithelial cells are situated; but never is this matter deposited between the walls of the proper pulmonary vesicles.§ These interstitial tubercles occur only between the lobules, almost always in company with the other kind, the so-called infiltrated tubercles. Scarcely ever do we see tubercular mass between the lobules alone, compressing the neighbouring pulmonary vesicles; the adjoining air vesicles are always at the same time filled with tubercular mass (infiltrated). The same process, the same effusion, produces between the lobules interstitial, and in the cavity of the vesicles, so-called, infiltrated tubercles; where these interstitial tubercles appear alone, it is, as we shall see, in consequence of a primary disease of the lymphatics.

In order to perceive this with certainty, a fine injection of the pulmonary vessels is very useful, as these between the lobules form an entirely different and much coarser vascular net-work, consisting of more capacious meshes, and differing so very much from the greatly finer and denser web on the walls of the air-vesicles, that they can be discriminated at first sight. The interstitial tubercles, however, are grey, according to Rokitsansky,‡ the infiltrated yellow.¶ This difference is said to arise from the interstitial being the result of a simple fibrin-crisis, the yellow of a croupy crasis.** But how is it possible that these crases should always occur simultaneously, and that the first crasis-matter should invariably have a special predilection for depositing itself between the lobules, and the second for placing itself in the pulmonary vesicles? If, however, we examine the structure of the lungs more accurately—for example, in a portion of the lung in which the

capillary vessels are filled merely with a yellow matter, we find everywhere between the lobules, not only black pigment, but also that the branches of the pulmonary artery, passing towards and between the pulmonary vesicles, are more or less covered with black pigment. This black pigment, which may morbidly increase, gives to the tubercle a grey colour, which, therefore, is not derived from an original and distinct fibrin-crisis, but simply from the admixture of this colouring matter. This pigment seems to be adherent specially to the lymphatics, in consequence of which the latter, in an adult lung, as well as the bronchial glands, appear to be black.*

The yellow tubercle passes, according to Rokitsansky, at one time into a state of softening, at another into calcification.† This calcification arises, in my opinion, from a peculiar affection of the lymphatics between the lobules, consequently in the grey tubercle, chronic inflammation of which is usually followed by calcification. Thus we meet this calcification also constantly in the bronchial glands, if the process occurs in the lungs themselves. Thus, too, mesenteric glands filled with chalk often occur in the mesentery, of which I possess, in my collection, specimens with lymphatics injected with quicksilver.

Hence we see that the termination in calcification is not to be ascribed to a peculiar property of the blastema, but to the peculiar tendency of lymphatics to undergo this process.‡

But the property of tubercles, also, of not undergoing further development—and this is a principal point, which we must examine somewhat more closely—is not

* I have treated of these tubercles more in detail in my former essay, on the occurrence of elastic fibres in the sputa of phthisical patients. See *Nederl. Lancet*, 2de Ser. Jaarg. 1, p. 429, note. I thought it not superfluous to represent in Fig. xi., one of my preparations, showing distinctly the connexion between calcareous tubercles and lymphatics. In it a portion of the surface of the lung, *a a a*, is seen; over this runs a lymphatic, *b*, filled with quicksilver. Somewhat lower is a very black spot, penetrated by this lymphatic, and having in the middle a white calcareous tubercle, or hardened particle. At *d* and *e* several fine lymphatics appear emerging from the tubercle, and again partly uniting, to form a larger trunk, *f*. I also possess several examples of such calcified tubercles occurring between the tissue in the depth of the lungs. Many portions of calcareous matter were also found in a tubercle of nearly two centimetres in diameter, filled with caseous matter, into which a whole network of lymphatics entered, and in which the injected quicksilver was poured out.

† Rokitsansky, loc. cit. vol. 1, p. 398.

‡ Dr. J. M. Schrant, who, in his otherwise excellent prize essay, comes forward as a zealous advocate of Rokitsansky's doctrine of crases, observes, that he also has often met with calcification of the infiltrated tubercle. (See *Prijverh. over goed en kwaadaardige gezwellen*, D. I. p. 67, note 2.) When we reflect that both kinds almost always occur together, and that, in effusion into the pulmonary vesicles, effusion into the interlobular connective tissue at the same time takes place, it cannot appear strange that the process of calcification, once commenced between the lobules of the lung, should extend itself also to the tubercle in the pulmonary vesicles connected therewith; the more so, as many branches of the pulmonary artery, which penetrate into the lobules, are distributed as smaller vascular trunks between the walls of the pulmonary vesicles in a lobule, and are everywhere covered, just like lymphatics, with black pigment, in the form of fine irregular strise; so that lymphatics appear to penetrate also into the very lobules; and thus here also the same opportunity for calcification may exist, as I can show from recent preparations.

* *Path. Anat.* B. iii. p. 122, &c.

† Loc. cit. p. 122.

‡ Loc. cit. p. 123.

§ Todd and Bowman think that the capillary vessels in the pulmonary vesicles run naked and uncovered, attached to the wall of the pulmonary vesicle, but not situated between two membranes. I have not been able to satisfy myself of this, using a 420 magnifying power. It appears to me that an extremely thin membrane covers these bloodvessels, and in the interspaces adheres to the wall of the pulmonary vesicle, whereby the vessels are attached to the walls of the air vesicles. In some places, where this delicate wall was obliquely cut through, I distinctly saw a very thin investing membrane on both sides of the injected bloodvessels. Bowman compares their state to that of the naked vascular filaments in the corpuscula malpighiana of the kidneys; but here, too, these vessels are not naked, but, as I can show in microscopic preparations, are surrounded with an extremely thin membrane.—See Todd and Bowman, *Phys. Anat.* part iv. S. 1, p. 398.

¶ *Path. Anat.* B. iii. p. 122.

‡ Loc. cit. p. 123.

** Loc. cit. vol. 1, p. 519.

the result of a primary morbid affection of the albumen or the fibrin of the blood, but of the particular situation where, and of the manner in which, the tubercle is developed.

If effusion takes place in a lobule, it extends at the same time to the interlobular space; that is, the effused matter does not confine itself to the cavity of the pulmonary vesicle, but the interspaces between the lobules are simultaneously more or less filled with the exudation. The exudation is here, however, in contact with connective tissue and vessels, and development, it is true, to a certain extent, takes place; that is, we see the cells in this situation become lengthened, and assume more or less of a filamentary form, which never occurs with the tubercular matter in the pulmonary vesicles,* the simple reasons of which I shall presently more accurately examine. Now, if the cause of the want of development were to be found in an original blood-crisis, it would follow, that a preceding tuberculous crisis should be required for the formation of tubercular matter in the pulmonary vesicles, while the effusion simultaneously occurring between the lobules should yield healthy fibrin, which is absurd.†

In order, however, plainly to indicate the reason why tubercular matter deposited in the cavity of the pulmonary vesicles never attains a higher degree of development, it is necessary previously to investigate the properties which the pulmonary vesicles, and the epithelium lining them internally, have in common with all other secreting organs.

All secreting organs, by which matters are separated from the blood, are covered internally with a peculiar kind of epithelial cells, which cells are especially to be found in the ultimate terminations or vesicles, and sometimes also on the inner walls of the excretory ducts. These cells possess the peculiar property of multiplying themselves when they come in contact with serum effused through the vessels; of swelling up, and usually, finally, taking up a constantly increasing amount of fat, while the cell walls become thinner, of bursting or disappearing, and pouring out their contents as a secretion. They are thus of the greatest importance in determining the nature of the secretions. These cells are situated everywhere on the membrane investing the secreting organs internally, and constitute, as has been shown, particularly by Carpenter, the most efficient part of the organs.‡ They everywhere fill, nearly entirely, the follicles and mucous crypts, the ducts and vesicles of the salivary glands, the tubuli uriniferi, the lacteal ducts, and form the principal constituents of the liver, in which organ the entire series of changes which they undergo in their transmutation from smaller cells to large hepatic cells, finally pouring out their contents as bile, has been admirably explained by Carpenter.§

The same process had previously been described by Frerichs, with reference to the synovial membranes.¶ These are invested with proper epithelial cells, which are constantly rubbed off by friction during the motions of the joint, swell up, and finally (according to

Schrant, through mucine metamorphosis of their contents) are dissolved in the articular fluid, whereby the mucus peculiar to this fluid is prepared. If a joint is not kept in motion, this abrasion of the epithelial cells is diminished; but the articular fluid now also becomes more watery, and contains less mucus, as Frerichs has shown by comparative analyses.* In consequence of this the joints of patients who have long been bedridden become at length stiff and rigid.

In the same manner, too, is the milk formed by the epithelial cells of the mammary glands, which first take up fat, and enlarge; in the commencement of secretion exhibit themselves as large cells filled with fat globules; and subsequently, when suckling is completely established, are dissolved in the glandular vesicles, the contents of which are now discharged as milk or suck, as has been satisfactorily demonstrated by Lammerts van Buuren, and by Donders.*

(To be continued.)

Reviews.

The necessity for some Legalized Arrangements for the treatment of Dipomania. By ALEXANDER PEDDIE, M.D., &c. Edinburgh: Sutherland & Knox. 1858.

The report of the late Scottish Lunacy Commission has been generally adopted in the Act for the regulation of the care and treatment of Lunatics recently passed under the auspices of the Lord Advocate, who, however, omitted to give effect to the decided opinion expressed by the Commissioners, that any such measure should contain "special regulations for prolonging control over cases of insanity arising from intoxication." This omission has caused the author of this useful pamphlet to give it to the public, having previously submitted the substance of it to the Medico-Chirurgical Society of Edinburgh, where it met with a favourable reception.

Dr. Peddie urges, with great force and earnestness, that the excessive, uncontrollable desire for intoxicating drinks, is a disease; and that it is symptomatic of some abnormal cerebral condition, which gives it the character of a form of insanity; and that it should always be kept in mind, that this condition is not so much produced by intoxicating drinks, as it is by that which created the desire for them; that medical observation, having declared that dipsomania, a term expressing very accurately this uncontrollable propensity, is a physical proof of mental disorganization, such cases should be treated on the same footing as other forms of insanity. New legislative provisions for the care of dipsomaniacs, are not only advocated on very cogent medical grounds, but a plan of establishments for their reception is appended, which appears to us to be well devised.

On this interesting medico-legal question, we doubt not that Dr. Peddie will meet with support from both professions, and that the general public will, ere long, consider with him, that the dipsomaniac, the chronic insane drinker, should be suitably restrained, since he can no longer control himself.

Alcohol: its Place and Power. By PROFESSOR MILLER. 6th thousand. Glasgow: 1858.

This small but comprehensive treatise, was prepared by Professor Miller at the request of the Scottish Temperance League, who presented the MS. to that body

* See Figs. vii. and viii.

† Rokitsky appears also to have seen this, and endeavours to explain it by supposing that a purely croupy or tuberculous crisis does not usually exist, but that, in tuberculous products, elements capable of morpious development (*Gestaltungsfähige*), of being developed into tissues in the ordinary manner, are also present in varying quantity.—Op. cit. T. i. pp. 519 et seq. It is evident that in this case long cells should occur also in the tubercular mass in the cavity of the air-vesicles, and not merely between the lobules, which never takes place. This explanation, therefore, falls to the ground.

‡ See *Cyclopædia of Anatomy and Physiology*, Art. Secretion, vol. iii. pp. 443 et seq.

§ Loc. cit. p. 448 et seq. figs. 312, 313, and 314.

¶ Wagner's *Handwörterbuch*, Art. Synovia, B.J. iii. 1 Th. p. 465, &c.

* Loc. cit. p. 467.

† *Nederl. Lancet*, 2nd series, 5th year, 1849, pp. 1, &c. Pl. 1. Also in his dissertation, "On the Composition and Mode of Development of the Morpious Constituents of Milk," Utrecht 1849; still further confirmed in the human subject by Donders, *Ned. Lancet*, 2nd series, 6th year, p. 34.

as a gift, only stipulating that it should be published at a price within the reach of all classes.

More valuable information could hardly be placed in the hands of a working man, who here may see demonstrated what alcohol is and what it is not; and be disabused of the fond notion, that he can with any benefit administer to himself, any quantity of this insidious "poison."

That alcohol is merely and truly a "poison," affecting the blood of the human frame in the manner of other poisons, Professor Miller shows in a most unpromising manner. Like other poisons, such as strychnine, prussic acid, &c., it may be, and is, most usefully exhibited as a medicine.

The positions laid down in this seasonable work will not be easily refuted, viz., that alcohol is a poison, potent and pernicious, a medicine, powerful and often precious—that alcohol in the living stomach of man is not food, as by a fatal and fundamental error it is too often supposed to be—and that the man who uses alcohol as a "luxury," aware at the same time that it is not food, and of the risk thereby incurred, will not readily find an excuse for this self-indulgence.

Professor Miller has done every justice to this most important social topic; and the benevolent object of the Scottish Temperance League in requesting him to prepare it, and in thus publishing it at their expense for the general advantage, has been, in our opinion, as fully attained as could be by any work of the kind.

Selections from British & Foreign Journals.

TINCTURE OF BENZOIN AS A REMEDY FOR EPISTAXIS.

By B. FORDYCK BARKER, M.D.,

Professor of Midwifery, &c., New York Medical College.

I was called on the night of January 3rd to see Anne —, aged 12, on account of a severe hæmorrhage from the nose. Her father informed me that she was a delicate child, with disease of the heart following rheumatism, and that she had had several severe attacks of epistaxis before. The posterior nares had been twice plugged, each time by a distinguished surgeon of this city who had been called in consultation. He represented the present attack as more severe than any she had before. It had resisted all the remedies which they could apply, and from past experience with such attacks, he seemed quite familiar with all the ordinary methods of controlling such hæmorrhages. He had blown alum up the nostril, applied ice to the nape of the neck, plugged the nostril with lint soaked in a strong solution of tannic acid, but still the hæmorrhage continued at the rate of 60 drops a minute. She was a feeble delicate child, extremely nervous, and exhibiting the symptoms of extreme loss of blood to a fearful degree. Her lips were colourless, her respiration hurried and panting, her pulse small and wiry, her surface cold, with great impatience and nervous excitability. I at once began to prepare to plug the posterior nares by means of the sound of Belloc. But my patient suspecting what I was about, immediately began to protest with violent screams that she would have nothing of the kind done, and no reasoning or expostulation was able to allay the violent frenzy that followed. I have not found the plugging of the posterior nares, a particularly easy or agreeable operation even with the best subjects, and in the present case I plainly saw that it would be unusually difficult. For some time past I have been accustomed to arrest the severe hæmorrhage resulting from malignant ulceration of the cervix uteri, by painting over the diseased surface the Tinct. Benzoïn Co. It now occurred to me that this article might possibly prove equally serviceable in the present case. I injected about

a drachm, by means of a small syringe, up the left nostril, the passage from which all the hæmorrhage came. For a moment or two she complained bitterly of a severe burning pain in the nose, extending back to the ear, but it very soon subsided, and the hæmorrhage entirely ceased within five minutes after the injection was used. I remained with my patient about a half hour, and then directed a tea-spoonful of elix. paregoric to be taken, and this to be repeated in an hour if she did not fall asleep. She has had no hæmorrhage since, and her general health has improved in the most remarkable manner, under the steady use of the syrup of the phosphate of iron.

As a further illustration of the hæmostatic powers of this agent, I may mention the case of a gentleman, who had for several years been suffering from internal piles, which had greatly impaired his general health from frequent bleedings.

One very hot morning in June, 1856, I was called to see him on account of severe hæmorrhage. I learned, that for several days he had lost a good deal of blood after his morning dejection, but this morning it was so excessive as to induce complete syncope. When I saw him he was still very faint, and there was a constant oozing of blood from the rectum, which was so sensitive that I could arrive at no satisfactory result from physical exploration. With a small syringe I injected into the rectum a half ounce of Tinct. Benzoïn Co. as soon as it could be obtained. Its effects were quite striking. He was at once aroused from his syncopical condition, and since that time has never suffered from the hæmorrhage.—*American Medical Monthly.*

DIVISION OF THE TRICEPS IN OLD DISLOCATIONS OF THE ELBOW.

A boy, whose left elbow had been dislocated with both bones backwards, since October last, was brought into the theatre of King's College Hospital on the 16th of January, the arm being in a semi-flexed position. When under the influence of chloroform, Mr. Fergusson applied forcible flexion, so as to break up any adhesions which might be present, and thus allow of a movable joint. This, however, could not be satisfactorily accomplished until the tendon of the triceps cubiti muscle was divided by subcutaneous incision, where it is inserted into the olecranon process of the ulna. When this was completed, complete flexion was obtained, and the arm was for the present bandaged in that position. After a while motion will be used, and no doubt, a good useful arm will result from this treatment. Mr. Fergusson stated that a short time ago he treated another case in a similar manner. A gentleman returned from abroad with his elbow dislocated, and his arm in a straight position, the accident having ensued eleven months before. As the arm was perfectly useless in that position, he was most anxious to have something done. Mr. Fergusson, therefore, resolved to try forcible flexion, which did not succeed until the point of resistance was overcome, and that was the subcutaneous division of the insertion of the triceps muscle, when, as in the case of the boy, the most perfect flexion was gained. This gentleman made a good recovery, with a useful arm. Had the operator not succeeded in remedying the awkward position of the arm, he was quite prepared to excise the joint, which no doubt would have given an equally useful arm.—*Lancet.*

UNIVERSITY OF DUBLIN.—At the spring commencement, held as usual on Shrove Tuesday, in the Examination Hall of Trinity College, the following medical degrees were conferred by the Right Hon. Francis Blackburne, Lord Justice of Appeal, Vice-Chancellor of the University:—M.D.—John R. Kinahan. M.B.—Edward P. Wright; Richardson King; Benjamin Bruland; William H. Pickford.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.—CONVERSAZIONE.

On Thursday, January 21st, the first conversazione for the season, in connexion with the Royal College of Surgeons, took place in the Surgeons' Hall. There was a large attendance, including Dr. Ormond, President of the College of Surgeons; Professor Pillans, Dr. R. Lee, Professor Traill, Mr. J. M. Bell, Dr. MacLagan, President of the College of Physicians; Bailie Blackadder, Bailie Grieve, the Dean of Guild, Convener Tibbets; Councillors Cassels, Dick, Girdle, Crichton; Dr. Struthers, Mr. Thos. Cleghorn, Dr. Gairdner, Mr. Hope, D.K.S., Bailie Johnston, Bailie Russell, Dr. Laycock, Dr. Renton, Professor Balfour, Dr. Armstrong, London; Dr. Cumming, Chester; Dr. Fraser Thomson, Perth, &c. During the evening, Dr. W. T. Gairdner delivered an interesting lecture on "Periodicity in Disease." He reviewed the facts connected with the diurnal, annual, monthly, and weekly periods, and noticed the medical opinions regarding critical days and climacteric years. The opinions expressed were somewhat to the following effect:—Daily and annual periodicity were regarded as proved by numerous facts; the former, as regards man and other animals alike; the latter, chiefly as regards the lower animals and the vegetable kingdom. Dr. Gairdner considered the physiological explanation of these facts to be found in the habits of existence impressed upon living creatures by the solar revolution. Monthly periodicity, as connected with the lunar revolution, was much more doubtful; and, in particular, neither menstruation nor pregnancy could be interpreted as corresponding with the period of the lunation. As regards weekly periods in the phenomena of life, Dr. Gairdner could find not a trace of real evidence; though abundance of medical superstition had accumulated about the weekly period, chiefly from its being an exemplification of the mystic number seven, so much regarded in the Pythagorean philosophy, and forming so large a part of the doctrine of climacteric years, as well as of critical days. These doctrines Dr. Gairdner next analysed, bringing to bear on their illustration the statements of those ancient writers by whom they had been chiefly established, and which were found to be self-contradictory, as well as opposed to modern experience in great part, leaving a very small foundation, if any, for the doctrines in question. It is impossible, within the limits of a notice such as this, to give more than an idea of the subjects treated of, the whole being viewed by Dr. Gairdner rather as a chapter in the history of the human mind, than as a strictly medical subject, possessing a practical interest for physicians. At the conclusion of the lecture a vote of thanks was given to Dr. Gairdner, on the motion of Professor Pillans, seconded by Mr. J. M. Bell.—*British Medical Journal*.

We are very glad to find that there is a movement going on which will probably tend to alter and improve the method of conducting medical education in England. A communication involving propositions to this effect has been made by one to the other of our great Colleges of Physicians and Surgeons, and both of them cordially agree to the principles suggested in it. The College of Surgeons has arrived at the conclusion, that the direction in which it has been striving to extend, of late years, the education of the student, is unfortunate; that the increased number of courses of lectures, which its programme has compelled him to attend, has not tended to advance him in a really useful knowledge of his profession, but that, on the contrary, it has caused him to throw himself more than ever into the hands of the grinder. To remedy this evil, the College proposes that the courses of lectures at present required from candidates by their Board shall be considerably reduced in number, so that the student may have some little time given him for digesting what he hears, and more

opportunity and leisure for making himself more thoroughly acquainted with clinical surgery and practical anatomy. Every one conversant with the baneful effects of the present system of lecturing will be delighted to hear that such a move is going on. How can it be expected from any living brain that it should take in anything but a mere smattering of what it hears, when its owner is forced, hour after hour, to be changing continually the course of his thoughts, and, without a moment's interval, to be rushing from one subject to another? We are also greatly pleased to find that the College considers a modification in the present prize system to be necessary, and that in all these particulars the two colleges go cordially hand in hand. We sincerely congratulate them on this grand step forward. It is another lift of the mind out of the tangles which mediæval times have twisted around its movements.—*Medical Times and Gazette*.

COMPRESSION OF THE CAROTIDS IN EPILEPSY.—In the case of a young man who had suffered from more than five hundred epileptic attacks within the space of eight years, Dr. Reiner tried the effect of compressing both carotids until the complete cessation of the pulsations. This procedure, practised twenty-two times on the first appearance of precursory symptoms, always had the effect of reducing the paroxysm to a few almost insignificant convulsive movements. Meanwhile the patient's general condition, both bodily and mental, has greatly improved.—*Medical Times and Gazette*.

APPOINTMENT.

COLERAINE DISPENSARY.—On Saturday, 13th inst., a medical officer was elected for this Dispensary, consequent on the resignation of Dr. Macaldin. There were two candidates—Dr. M'Intire, late of Portstewart, and Dr. Barr, Coleraine. Dr. M'Intire was proposed by the Rev. S. Gwynne, and seconded by J. A. Lyle, Esq.; and Dr. Barr was nominated by Mr. J. Moore, and seconded by Mr. John Williamson. A poll was taken, when 18 voted for the former and 3 for the latter. The Chairman declared Dr. M'Intire duly elected.

DEATHS.

On the 13th Feb., in Edinburgh, HUGH BOW, M.D., Inspector General of Army Hospitals, aged 81.
On the 26th Feb., at Ardara, Co. Kerry, THOMAS MARROW, M.R.C.S.E.

PUBLICATIONS RECEIVED.

Erichsen's Science and Art of Surgery. London: Walton & Maberly.
Dipsomania, or Drinking Insanely. By Alexander Fiedla, M.D. Edinburgh. Sutherland and Knox.
Handbook of the Science and Practice of Medicine. By William Altkem, M.D. London and Glasgow: Richard Griffin and Co.
Natural History Review, Vol. V. No. 1.
The Geologist, Nos. 1 & 2.
Gleet: its Pathology and Treatment. By Henry Dick, M.D. London: Baillière.

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CASE OF ACUTE BRONCHITIS, WITH RAPIDLY FATAL HÆMORRHAGE FROM THE LUNGS—CONTRACTION OF THE LEFT AURICULO- VENTRICULAR ORIFICE.

By DR. LEES,
Physician to the Meath Hospital.

(Reported by Mr. JOSEPH BARR.)

A delicate-looking, emaciated woman, æt. 45, was admitted into the Meath Hospital February 24, suffering from general bronchitis. She had constant cough, with scanty expectoration of mucus, and occasionally of bright red and frothy blood. There were sonorous and sibilant râles all over both lungs, but no dulness on percussion. The action of the heart was very strong, but without any morbid sound or increased dulness over the præcordial region; and the pulse at the wrist was small, quick, and very feeble. Her face was congested and anxious, her breathing hurried, her tongue dry and furred, and her bowels costive. She stated that for the last ten months she had observed her breathing to be shorter than usual. About six weeks ago she was attacked with a hard, dry cough, and lost flesh, but continued her occupation (that of a cook) till the last fortnight, when her cough became much worse, as also her breathing; and this morning, for the first time, she coughed up blood. She was ordered small doses of antimony, with muriate of morphia and hydrocyanic acid; but that evening she coughed up a large quantity of blood, and died immediately.

On dissection, both lungs were found to be intensely congested with blood, and of a bright red colour when cut into; the bronchial tubes filled with red frothy blood, their mucous membrane soft, vascular; and all the minute vessels distended with dark coagula. There were *no tubercles* in any part of the lungs, nor the slightest trace visible to the naked eye, of laceration, rupture, or induration of their structure. In fact, there appeared

to be a general sanguineous infiltration into all the tubes, air-cells, and vessels of the lung. The heart was rather small, intimately connected by soft adhesions to the pericardium, and coated with much fat. On opening the left ventricle, the auriculo-ventricular orifice was found much contracted; the posterior flap of the mitral valve puckered, and thickened at its base; but no ossific or calcareous deposit on any part. The right ventricle was dilated, *but not hypertrophied*.

I think that the hæmorrhage in this case was caused by the contracted state of the left auriculo-ventricular orifice, which had previously only caused dyspnoea by its obstruction to the free passage of the blood from the auricle into the ventricle, and consequently from the lungs into the left auricle; but when the circulation was quickened by the attack of acute bronchitis, and the constant act of coughing tended to excite repeated congestion of the lungs, which were thus placed between two compressing forces—the right ventricle, on one side, propelling the blood into the lungs, and, on the other, the narrowed left auriculo-ventricular opening, preventing its free exit—the blood was thus thrown back on the lungs, and the minute capillaries having given way, fatal hæmorrhage was the result.

Mr. Adams, in an interesting paper on "Diseases of the Heart," (in the *Dublin Hospital Reports*, vol. iv), gives two cases (both females, and both aged 45), in whom sudden death occurred—one with all the symptoms of apoplexy, the other with epilepsy; and the only physical change of structure to account for their death, was a contracted condition of the left auriculo-ventricular orifice, which Mr. Adams considers to have been the cause of death, by impeding the return of blood from the brain. An important point in this case was the great disproportion between the pulsation of the heart, which was strong, with that of the pulse at the wrist, which was very feeble. This was also observed by Mr. Adams in his cases, and may form a valuable aid in the diagnosis, when, as in my case, there are no morbid sounds to be heard by the stethoscope, nor any complain-

made by the patient referrible to the heart. This case tends to corroborate the opinion of those who maintain, that in cases of pulmonary hæmorrhage depending on disease of the heart, the cause of the hæmorrhage lies in the left auriculo-ventricular opening causing obstruction to the free passage of blood from the lungs, and does not depend on hypertrophy of the right ventricle, as asserted by some writers; but if this latter opinion was correct, we should often meet with hæmorrhage in cases of emphysema of the lungs—a disease in which, above all others, we find the right cavities of the heart in a state of hypertrophy; whereas the contrary is the fact.

Steevens' Hospital.

CLINICAL REPORTS OF SURGICAL CASES.

By SAMUEL A. CUSACK, F.R.C.S., M.R.I.A.

Resident Surgeon, and Lecturer on Anatomy and Physiology.

Case of Popliteal Aneurism, cured by pressure in twenty-six and a-half hours.

William Connolly, aged 38, was admitted into Madam Steevens' Ward, under the care of Mr. Wilmot, on the 27th of October, 1867. He is a tall, thin-looking man, of pale complexion, but of good general health. He has lived temperately, has not had syphilis, and the heart and arteries, with the exception of the right popliteal, are free from disease.

Nine weeks before admission, while shoeing a horse, he received a severe strain in the right leg, from the animal making a sudden movement while the hoof was against his knee. He was thrown to the ground by the blow, but was able to go on with his work presently, and did not think much of the injury until the next day, when, after walking a mile, he found that the right knee had become stiff, and that there was a swelling behind the joint.

He continued to walk about for two days more, when a pulsating pain set in in the part, which obliged him to keep to his bed for a month, by the end of which time this pain and the swelling had so far subsided, that he was able to walk about a little, but could not take any active exercise, or return to his trade.

Up to the period of his admission there has been but little change. His chief complaint now is, that any attempt at walking, or moving the limb, is followed by increased pain and swelling. He sleeps well at night, but feels a little pain in the day; otherwise he appears in excellent health. His pulse is 82, and very tranquil. The tumor lies quite at the lower end of the popliteal space,

being covered up by the soft parts; so that at first sight it looks like a tumor in the muscles of the calf of the leg. On careful examination, however, the whole of the upper portion of the calf may be observed to pulsate, and a very distinct bruit is evident when the ear is applied. The tumor itself, as felt through the soft parts, may be estimated at the size of an orange; it is of a fusiform shape, and probably engages the bifurcation of the Popliteal artery. It can be nearly emptied by direct pressure. He is a spare man, and the artery can be easily compressed in the groin, so as to stop all pulsation in the tumor. The foot is slightly cedematous.

Treatment.—On admission he was ordered small doses of the tincture of digitalis (gtt. x. every six hours) in camphor mixture; he was also put on the low diet of the hospital, and advised to use but little fluid.

October 30, 8 p.m.—A leaden weight, of a conical shape, and weighing five pounds and a-half, having been placed on the femoral artery in the groin, it was found that there was scarcely any pulsation in the tumor, and that he could bear this amount of pressure without much inconvenience. He was ordered a draught containing twenty drops of the liquor morphis, and it was hoped that he would be able to sleep with the pressure on. He was unable to sleep, but kept the pressure steadily on, except for about two hours, until half-past seven the next morning, when it was removed, to allow him to sleep, having been on nine hours and a-half. At half-past nine, a.m., (Oct. 31), the weight was re-applied until nine, p.m., making in all twenty-one hours' pressure out of the twenty-five. The tumor had by this time become much more solid, and the anastomosing vessels on its surface remarkably distinct; the leg a little more cedematous than before; the foot kept warm by a water-bottle.

November 1, 10½ a.m.—He has had a good night's rest. There is a small gland, just where the pressure had been applied, which is tender; this, however, could be drawn to one side with the integuments, and the pressure was re-applied, having been increased to eight pounds, so as to stop all appreciable pulsation in the tumor. At four, p.m., on removing the weight, which had been on this occasion applied five and a-half hours (making in all twenty-six and a-half hours) it was found that the pulsation and bruit did not return. The limb was warm, and he had no pain anywhere; but the tumor felt hot and tender. He was directed to keep the pressure on for six hours longer, to make sure of a perfect cure. At ten, p.m., all pressure discontinued; "repeat morphia draught."

October 4.—No change since last report. The limb is maintained in a semi-flexed position on a pillow, and he is kept slightly under the influence of opium. The surface of the tumor is so covered with anastomosing arteries, that it almost seems to pulsate.

October 9.—The tumor is beginning to be smaller, and the oedema of the leg is subsiding.

October 15, the tumor had so far subsided, that he could not be persuaded to remain in hospital any longer. Nothing further has been heard of him since.

When the almost uniform success which has attended the treatment of aneurism by compression, in Ireland, is compared with the unsatisfactory results which have often followed a similar mode of procedure in England and Scotland, the question naturally arises, whether this circumstance is to be attributed to the general principle of treating the disease by pressure, or to some imperfection in the particular mode of its application. On referring to some cases which have recently been treated in this hospital, of which the above may be taken as a fair sample, I am induced to think that the nature of the pressure, and the time during which it is kept up, whether continuous or intermitting, has much to do with the result.

When the compression treatment was first adopted in Ireland, it was, I think, laid down as a general rule, that the pressure should be continuous, for which purpose instruments with two pads were contrived; or one pad was placed in the groin, and another lower down on the limb; so that before pressure was taken off in one place, it was applied in another. Lately this plan of treatment has been very much modified, and, as in the present case, the pressure has been applied periodically.

The successful result may perhaps be attributed to the more healthy condition of the patient's blood which must be obtained by a proper amount of sleep, and to the more healthy condition of the integument at the seat of pressure, which, instead of ulcerating and sloughing, as it frequently does under continued pressure, may be reasonably supposed to regain its natural state during the interval of repose.

Another conclusion to which we are led is, that when once the fibrinous deposit has been caused to commence on the interior of the aneurismal sac, it is not washed away or re-absorbed by the restoration of the circulation; so that when pressure is re-applied, the process of solidification is, as it were, taken up, where it had been left off at the cessation of pressure. Indeed, the idea has sometimes occurred to me, that once the coagulum has commenced to form, it may for a short time continue to appropriate to itself the fibrinous element of the blood, even though rapid circulation is going on.

With reference to the intensity of the pressure, it was formerly laid down that a small stream of blood should be allowed to flow through the sac, as it were to afford material from which the fibrin may be withdrawn. From the result of my own observation, I am inclined to think that this opinion requires modification. The treatment of aneu-

rism by compression may be conveniently divided into two stages:—first, that during which the collateral circulation is being developed; second, that period subsequent to its establishment, when the coagulating process goes on with greater rapidity.

In the first of these stages I think the former opinion holds good, and that some blood should be allowed to pass through the main artery; but once the second period has arrived, as much pressure may be applied as the patient will bear, and certainly it should be enough to keep the wall of the main artery in contact: the establishment of collateral circulation being a guarantee that the vitality of the limb will be kept up, and that blood for the formation of a healthy coagulum is present in the sac.

Lastly, the pressure in this case was effected throughout by means of a conical leaden weight, the lesser end of which, about the size of an ordinary tourniquet pad, was applied over two folds of soft leather to the artery. To keep the weight in position, and to direct the pressure, a stiff iron wire which has been inserted into its greater end while the metal was melted, was passed through a ring fixed in a cradle, large enough to stand on either side of his pelvis.

From the satisfactory results which have followed the use of the weight applied in this way, I am induced to hope that its simplicity and facility of construction may render it useful in the country, where a more complicated apparatus cannot readily be procured.

REPORT OF A CASE OF FATAL PERITONITIS,

CONSEQUENT ON THE PRESENCE OF A CONCRETION IN
THE VERMIFORM APPENDIX OF THE CECUM.

By JOHN S. DRENNAN, M.D.,
Physician to the Belfast General Hospital.

TO THE EDITOR OF THE DUBLIN HOSPITAL GAZETTE.

DEAR SIR,—The case of peritonitis from perforation of the cecal appendix, reported by Dr. Hughes in a late number of the HOSPITAL GAZETTE, reminded me of one of abdominal inflammation, originating in the same part, which I saw some years since with Mr. Frame of Comber. It perhaps presents features of sufficient interest to be recorded in your columns.

I am, &c., &c.,

JOHN S. DRENNAN.

Belfast, March 6th, 1868.

Saturday, October 28th, 1864. I was asked to visit Mr. M. G., aged 28, one of a family of sixteen, of whom but four now survive. He is of short and slight figure, and nervo-sanguineous

temperament. Has habitually enjoyed good health, but has complained of late of restless nights, languor on rising, and want of appetite for breakfast. On the 24th, he felt some pain in his stomach after running quickly. The following day it recurred, but was relieved by a carminative draught, and he proceeded in his gig to attend a fair, six or seven miles off, and afterwards went six miles further to dine with a friend. At the end of this latter journey he had a return of the abdominal uneasiness, to relieve which he took some brandy and water. This had the desired effect, and he proceeded to take a walk of some length over his friend's farm. On coming back, and before sitting down to dinner, he felt his stomach squeamish and oppressed, and on taking a few spoonfuls of soup he was obliged to leave the table. He soon, however, became better, without any evacuation of stomach or bowels, and then ate a tolerably hearty dinner. He continued apparently well the rest of the evening. Mr. Frame, who had been asked to see him during his indisposition, had prescribed a dose of calomel and Dover's powder to be taken at bed-time. This he did not take, but the next morning he took a couple of aperient pills, with some castor oil afterwards, which fully freed his bowels. The first and second motion were reported to be dark and foetid, with some scybalæ; but the third was pretty natural. Towards the evening of this, the second day of his indisposition, he had a violent attack of colicky pain and sickness, during which the abdominal muscles were gathered into knots. A hip-bath and an enema, directed by Mr. F., relieved this; but he passed a somewhat restless night, and he appeared needlessly anxious about himself, calling up his host from bed, merely, as it seemed, to tell him he felt better. On the following day (Friday) his stomach felt somewhat sick, but he complained of no pain until evening, when he had another attack. The next morning, about eleven o'clock, a.m., I saw him for the first time. His bowels had been freely opened some hours before, the dejections containing a few darkish scybalæ, with lighter colored fluid fæces; and he had vomited a considerable quantity of bitter and darkish fluid. I was struck by the somewhat sunk and haggard expression of his countenance. He lay at full length on his back, but was restless and fidgetty. He had an uncomfortable sense of tightness over the hypogastrium, but complained of no pain till the hand was placed on either flank; the tenderness then elicited seemed equal on both sides, and did not extend to the umbilical region; it was by no means great, and seemed induced alike by slight as by firmer pressure. The belly was somewhat swollen, but not hard; his pulse was 80, not hard, nor small, and perfectly regular. The skin moderately warm and somewhat moist; tongue whitish; some thirst; no nausea, nor complaint of anything but weakness.

In apprehension of the existence of sub-acute

inflammation, Mr. Frame and I agreed to administer mercury, so as slightly to affect the mouth, or until the abdominal tenderness had completely disappeared; turpentine stupes were also directed. The next day (Sunday) I received from Mr. G.'s brother so favourable an account, that although in his immediate neighbourhood, I avoided obtruding the presence of a second medical attendant upon him. The turpentine stupes had afforded immediate and complete relief, and he had had no recurrence of the paroxysmal pain. His mouth had already become slightly sore, and the mercury was discontinued. Mr. Frame visited him twice during the day, and on neither occasion did he complain of any abdominal uneasiness. About nine, p.m., however, he sent for Mr. F., to say that he was suffering from a pain in the right thigh, immediately under Poupart's ligament. A mustard poultice relieved this pain, but a similar pain immediately seized the opposite thigh in precisely the same situation. This latter pain subsided in about ten minutes, but he instantly complained of another over the bladder, with frequent desire, but inability, to pass water. A hip-bath gave him complete relief. After coming out of it he dried himself properly with a towel, walked firmly across the room, and got into bed apparently quite well. The following morning (Monday) I was hastily sent for, and saw Mr. G. before eleven o'clock, a.m. A most marked change for the worse had taken place in his condition and appearance; this had occurred about one o'clock that morning. His pulse had been felt by the gentleman in whose house he was, about twelve o'clock, and was then 80; one hour afterwards it began to increase rapidly in quickness, and at the same time to become weaker. When I counted it, it was at least 140, and extremely small and compressible. There was little abdominal pain complained of, but there was a feeling of tightness in the hypogastrium. The belly sounded tympanitic everywhere but in the right iliac region. He still lay generally on his back, but was frequently changing his position to either side; in doing this he more than once begged that a stool might be placed between his feet and the footboard, to give him a "purchase," and aid him in the movement, from which he never seemed to suffer pain. He had passed a large quantity of rather high-coloured urine during the night. A large blister had been applied to the abdomen at nine o'clock, a.m., and the administration of the calomel and opium had been resumed; warmth was applied to his feet; he took some chicken broth, which he retained, and seemed to relish; and occasionally small quantities of brandy and water, as his pulse became feebler and the debility increased. From a degree of fulness, and the dull sound on percussion in right iliac region, it was thought that there might be some fæcal lodgment in the cæcum, and that, whether or not, the stimulant effects of a turpentine enema might be beneficial. This was given,

but without other result than slight griping and uneasiness about the anus. In the course of the day the gums became white, and slight mercurial fetor was again evident. He continued to sink; his mind began to wander; and after two attacks of epileptiform convulsions, consequent on attempts to force himself out of bed (in the first of which he succeeded); he expired about one o'clock, a.m., on Tuesday, the seventh day from his first indisposition.

Post-mortem examination, thirty hours after death. Nothing peculiar in the conformation of the body; a large quantity of froth about mouth and nose; integuments of abdomen still warm, and extensive ecchymosis over their lower part, the hips, and inside of thighs. On incising the skin, air escaped from it with a slight hissing noise. On opening the abdominal cavity, the air-distended intestines bulged forwards; more than a pint of dark-tinted inodorous fluid was removed. In the ilio-cæcal region alone were there unmistakeable signs of recent inflammation; lymph of a soft consistence, coating and loosely uniting the folds of intestine there. The vermiform appendix was of a dark red or marone colour, and contained, about midway in its canal, a nodular mass of the size of a large filbert. Over this the coats of the appendix were thinned, but *not* perforated; the rest of its walls seemed somewhat thickened. From this point the inflammatory action seemed to have radiated as from a focus. The stomach, liver, and right kidney were quite healthy in appearance; the bladder was undistended; the other viscera and cavities were not examined, as the autopsy had to be hastily conducted.

The concretion was hard, and grated against the knife; it was composed (as determined by my friend Dr. Hodges) of a crust of earthy phosphates, containing a soft brownish vegetable matter.

In bringing the foregoing case at the time of its occurrence before the Belfast Medical Society, I adverted to the several remarkable features which I conceive it presents. Its history, however, will occupy so large a portion of your valuable space, that I will leave its readers to make their own commentary.

Proceedings of Societies.

PATHOLOGICAL SOCIETY OF DUBLIN.

February 6th, 1858.

Pathology of the Urine.

Dr. FLEMING presented three separate specimens of urine, in which blood, pus, and mucus constituted the most important morbid elements; and detailed the prominent features of the cases con-

nected with each. He directed attention to the sensible qualities of each specimen, as illustrating clinical points of practical value, where opportunities might not be afforded for microscopical or even chemical investigation. The peculiarities of the deposit of rest, the appearances of the supernatant fluid, and the characters of odour of the specimen, conjointly considered, would be found very valuable assistants in the diagnosis as to its nature. It was specially with a view to this object he brought the subject before the Society on the present occasion.

Bridle Stricture of the Urethra in the prostatic portion, with Stricture also in the membranous portion.

Mr. GEORGE PORTER exhibited the bladder, urethra, ureters, and kidneys of a patient who had been under his care in the Meath Hospital. He was about 39 years of age, of intemperate habits, and had laboured under stricture of the urethra for nearly ten years, which he had allowed to progress without seeking surgical aid. About two months before his admission into hospital he began to suffer from incontinence of urine, which, getting worse, obliged him to apply for assistance. On the 19th January, 1858, he was admitted under Mr. Porter's care, who found the stricture so tight, that it was with the greatest difficulty he could introduce No. 1 catheter into the man's bladder. Having accomplished this, he drew off a large quantity of turbid urine. The instrument was allowed to remain in the bladder, and a size larger was passed on the following morning. A considerable quantity of pus escaped each day after the urine. The size of the catheter was daily increased to No. 9, when the presence of the instrument retained in the bladder produced so much irritation, that it was merely introduced occasionally, but not allowed to remain. Notwithstanding the treatment adopted, the patient gradually sank, and died on the 5th February. The remains of a stricture existed at the membranous portion of the urethra, and a well-marked example of the "bridle form" of this disease was situated in the prostatic part of the canal, close to the orifice of the bladder. This viscus was thickened to nearly three times its natural condition, and the cavity reduced in size. The ureters were dilated to more than four times their normal calibre, and the kidneys (particularly the left) were completely disorganized by the formation of numerous abscesses in their structure. Mr. Porter considered the pathological specimen interesting, as displaying the effects of long-standing stricture on the bladder and kidneys, but particularly as affording an example of this disease in the prostatic portion of the urethra, and that, moreover, of a form of organic stricture which is rare in any part of the canal; and also as a marked instance of the rapid cure of permanent stricture by the continued pres-

sure of an instrument kept in the urethra. There was a close narrowing of the passage, which had lasted for a number of years, and this was dilated considerably in a very short time.

Pelvic Tumor.

Mr. SMYLY exhibited a tumor which had been removed from the body of a female aged 66 years. It was situated in the left iliac fossa, and was attended with no great inconvenience for the last 20 years. She was subject to occasional attacks of colic and obstruction of the bowels, which, however, gave way under the influence of treatment. On the 28th of last month she was seized with a severe colic, and complained much of obstruction of the bowels. On the 29th her symptoms were so urgent, that it was under consideration whether it would not be advisable to afford relief by opening the colon in the left lumbar region; and the gentleman who attended the case was induced to propose this operation, feeling, on examination, the large intestine distended with feces, and finding that active medicinal treatment had not the desired effect. This operation, however, was not performed, principally on account of the age of the patient, and the state of debility to which she was reduced. She gradually became comatose, and died. The tumor was found to be situated between the layers of the great omentum, during life it had been perfectly movable over the sigmoid flexure of the colon, just as it passed over the brim of the pelvis. The intestine, as was to be expected, was dilated above, and narrowed at the point of pressure. The tumor was bony, dense, and elastic, but Mr. Smyly found it hard to pronounce to what class of tumors it belonged. Its weight was between three and four pounds.

Condition of the Arteries in Pott's Gangrene.

Mr. SMYLY also exhibited the arteries of the lower extremities of an aged edentulous female, who died of Pott's gangrene. It appeared that about six months before she was attacked with gangrene, she had coldness of the right leg, and severe pain running up the limb to the groin. The disease first attacked the middle toe, and then the one next and external to it. She at length sunk under her suffering, having been about ten weeks in the Meath Hospital. On making an examination after death, it was found that the entire of the arterial trunk supplying the limb was obliterated, its walls calcified, and a coagulum blocking up its calibre, even as high up as the external iliac, which was also exhibited.

THE HUNTERIAN MUSEUM.—Mr. Wm. Donald Napier, of George-street, Hanover-square, a member of the College, has just presented to the curators of this museum some remarkably fine specimens of the *Dinornis Giganteus* of Owen.

ON THE ORIGIN AND FORMATION OF TUBERCLES IN THE LUNGS.

By J. L. C. SCHROEDER VAN DER KOLK.

Translated from the Dutch by

WILLIAM DANIEL MOORE, A.B., M.B., T.C.D.,

Honorary Member of the Swedish Society of Physicians, and of the Norwegian Medical Society.

(Continued from page 78.)

The same is true, as has already been observed by Carpenter, of the skin.* Here, however, the circumstances are different: the corium is everywhere covered with cells, which, still filled, are more or less spherical, and are incessantly regenerated; they are, that is to say, filled with the fluid effused from the upper layer of the cutaneous capillaries. Thus they form a soft, delicate layer of cells, more or less filled, representing the so-called *rete Malpighii*. Exposed, however, to the light, they lose their contents, dry, and now pass into the form of flat cells, of which the epidermis consists. The manner in which the increase of the youngest cells takes place in the corium, whether through unlimited cell formation, or through division and endogenous cell formation, is not as yet ascertained. Kölliker inclines to the latter opinion, although he leaves the question undecided.† It is sufficient that it is established, that here also, through the taking up of exudation through the bloodvessels, increase of cells takes place.

This process of increase of cells and change of their taken-up contents, therefore, holds good for all secreting organs. But should it be allowable to apply distinctively to these cells the name of secreting cells, of which, as Goodair and Carpenter especially have shown,‡ it is a general property, that once formed in the follicle or the secreting organ, they elaborate the matter taken up, but by no means possess the power of passing into higher formations, or of being changed into fibres or anything else. On the contrary, they all have this in common, one with another, that once arrived at maturity—that is, filled with matters taken up—they die off, and are dissolved, while their contents are expelled as secreted fluid through the organ. Their sole life's operation, therefore, is to multiply—to grow by taking up albuminous fluids from the blood—to elaborate and change these by continual metamorphosis of tissue, which the taken-up matters undergo with the intercellular fluid, whereby the cell walls become more and more attenuated and dissolved, and die off. If, however, by greater evaporation, as in the epidermis, they lose their fluid, they become flat and hardened.

* Cyclopædia, loc. cit. p. 444.

† Mikrosk. Anat. 2 Bd. 1 Hälfte, p. 67.

‡ On the Mutual Relations of the Vital and Physical Forces, in *Philos. Transact.* 1850, part 2, p. 738. In this valuable essay Carpenter says—"It is necessary for every act of secretion that a new formation of secreting cells should take place within the ultimate follicles of glands. These ultimate follicles are really to be regarded (as shown by Professor Goodair, *Anatomical and Pathological Observations*, No. V.) in the light of parent cells, which produce the true secreting cells in proportion as the materials of their growth are supplied by the blood. Now, these parent cells (follicles) themselves possess no secreting power, their vital force being entirely expended in the production of true secreting cells.

"On the other hand, the true secreting cells possess no reproductive power, but die and are cast off when they have reached their maturity, as if their whole vital force were expended in the secreting process, which is itself nothing else than a portion of the act of growth."

I regret to say that I have as yet had no opportunity of consulting Goodair's work for myself.

If we now examine the lungs, these also agree in this respect with the other secreting organs; that is, the pulmonary vesicles are covered internally with epithelial cells, which, however, in the healthy condition, do not exhibit themselves as swollen and spherical, as in the other secreting organs, but are flatter. Constantly exposed in respiration, that is to say, to the air and to evaporation, they cannot become filled, but adhere as flat cells to the walls of the pulmonary vesicles.

In Fig. I. we see such a wall of a pulmonary vesicle, taken from a healthy lung, and represented magnified 420 times: *a a a*, boundary of the pulmonary vesicle, consisting of a stronger bundle of elastic fibres running through the walls of the vesicle, both constituting, by their elasticity, the chief agents in expiration, and by their rigidity preventing the collapse of these vesicles; *b b*, inner edge of the pulmonary vesicle, from which the uppermost membrane is torn off; *d*, the outer wall of the pulmonary vesicle, with some elastic fibres torn loose, after the uppermost or inner membrane has been removed; whence it is evident that the wall of a pulmonary vesicle does not consist of one membrane, as Bowman considers,* but of two membranes, very firmly united to one another. At *e* we see stronger bundles of elastic fibres, and distinct filaments separating from them, spreading between the two walls of the pulmonary vesicle. The wall itself is everywhere covered with flat cells, some of which are smaller, and appear to exhibit themselves only as nuclei; others are larger; all possess a nucleus, with more or less of granular matter. At *f* we see a very large cell filled with granular matter and some drops of oil. I constantly found cells of a similar size in healthy lungs, usually loose, and almost always floating in the accompanying fluid, sometimes still adherent to the wall of the pulmonary vesicle.† If, however, we examine a pulmonary vesicle at the edge of a tubercle—where, for example, the bloodvessels are still capable of being injected—in a very thin section, we find no longer a single layer of these cells, but they are remarkably increased in number, and form sometimes two, three, and more layers over one another, until, in the tubercle itself, the entire pulmonary vesicle is filled with them.

In Fig. II. I have delineated, as accurately as possible, a couple of pulmonary vesicles, from a tubercle taken from a phthisical patient:—*a a*, edge of a pulmonary vesicle, most of the tubercular cells of which are dilated; *b b b*, adjoining pulmonary vesicle filled with numerous tubercular cells; *c*, edge of a portion of a pulmonary vesicle, freed from tubercular cells. At *d* the still unaltered wall of the pulmonary vesicle is seen, covered with epithelial cells of different sizes; in some, as it appears, are nuclei still free, oil-drops, and granular matter. Here and there we see the elastic fibres between the epithelial cells ramifying through the wall of the pulmonary vesicle. At the middle and upper end some larger cells of a darker colour are seen; they are no longer flat, but are filled with matter, and are consequently more or less swollen and spherical; they are

epithelial cells, more or less enlarged with fluid, and set free, which constantly increase in size; their contour is distinctly and faithfully represented in the figure; the nuclei are here also distinctly visible; the edges of the pulmonary vesicle *a a a* are completely covered with them. In the adjoining pulmonary vesicle, *b b b*, these cells have already become much larger, and attached to one another. It is remarkable that the largest cells usually occur in the middle of the cavity of the pulmonary vesicle. The larger ones are, for the most part, filled with numerous nuclei; in the smaller I almost always discovered but one nucleus.

From this we plainly see how these cells, which fill up the pulmonary vesicles and constitute tubercles, are nothing else than epithelial cells, which, by imbibition of plastic matter effused in the cavity of the cell, swell up, enlarge, and are cast off from the wall of the pulmonary vesicle. The cells which are situated in the centre of the vesicle are consequently the oldest; that is, they are farthest removed from the walls, and have been the longest exposed to the influence of the surrounding fluid, and are consequently also the largest. They are all filled with granular matter and minute fat globules, while in the larger an increase of nuclei takes place.

If we examine the tubercles in a somewhat more advanced stage, in which they exhibit a greater tendency to softening, we find the larger cells just described in much less quantity, and, in place of them, the pulmonary vesicle is again filled with smaller cells. Among these there are, however, some larger cells (see Fig. III. *a*), wherein many nuclei or smaller cells are evidently enclosed, exactly corresponding to the smaller cells *b b*; so that there can scarcely be any doubt that in this case the larger cells have been dissolved or burst, and the small ones consequently set free; an endogenous increase of cells, therefore, takes place.

These smaller cells, or nuclei, are almost always in some measure irregular in shape; others, however, are perfectly round. In very many the nucleus is deficient; in others a nucleus is visible, even without the addition of acetic acid. By the latter they are, however, made more distinct; and I saw in several of these little cells a perfect succession in the development of the nucleus, from a large granular particle to such as filled a considerable portion of the cell (see Fig. III. *b*). These nuclei or cells which have been set free are the same as those described and represented by Lebert as irregular cells, constituting the contents of the tubercles, or as tubercular matter.*

If we compare with these the sputa of a phthisical patient, we shall observe in the latter the same little cells, but they have again become somewhat larger by imbibition, and are filled with nuclei and granular matter. They represent the multitude of little cells which form the principal constituent of the sputa. (See Fig. IV. *b*).

In the tubercles I have, especially after the addition

* Todd and Bowman, *Phys. Anat.* 1832, part 4, sect. I, p. 303. I acknowledge that it is very difficult to satisfy one's self, everywhere, of the duplicate nature of the walls of a pulmonary vesicle; yet in very finely inflated lungs I could in most places distinguish the two membranes, one of which runs very closely over the wall of the capillary vessel, to unite again with the other in the interspaces. Often, however, we fail to distinguish both membranes or walls. At *d*, Fig. II., the epithelial cells are seen glimmering through the single membrane; while, by varying the focal distance, which cannot be represented in the drawing, it was evident that the torn-off edge *c* was situated above the inferior membrane *d*.

† In my former essay on the elastic fibres (*Ned. Lancet*, 2d series, 1st year, pl. 7, fig. iii.), I represented these larger cells, without, at the time, suspecting the peculiar nature and true signification of these cells.

* Lebert, *Phys. Path.* I, p. 353 et seq. Lebert recommends for this investigation soft tubercles, which he then dilutes with water, in order sufficiently to divide the tuberculous matter (p. 356). Precisely in consequence of this manoeuvre, he has probably not seen the proper epithelial and parent cells, in which these nuclei are enclosed, as they burst so rapidly on the addition of water. It is better to place a lung for some time in spirit, and subsequently, with a sharp knife, to take very thin sections, when we can perceive the tubercular cells unaltered in their relation to the pulmonary vesicles. Lebert (l. c.) denies the existence of nuclei in this tubercular matter, although he sometimes observed the appearance of them. This depends on the period of development at which they were examined. Schrant expresses himself less positively; he suspects that these, possibly, are obsolete, enclosed (epithelium) cells, exudation corpuscles, &c.—*Prize Essay on Benign and Malignant Tumors*, part I, p. 44.

of acetic acid or of water, met very many of these little cells, which, under a magnifying power of 420 diameters, could in no respect be distinguished from the sputum globules or cells. Even in the sputa, especially in commencing vomica, we not unfrequently find larger cells (Fig. IV. a), filled with numerous fat-globules, and one or more nuclei or small cells; these are the same which, in Fig. III., are represented from tubercles—namely in the state of parent cells passing into fatty metamorphosis, and half dissolved, which still enclose the proper sputum cells. I often saw these parent cells burst under the gentle pressure of a thin covering glass, or on the addition of water, when the enclosed nuclei alone remained, and could not be distinguished from the surrounding sputum globules. Free fat globules also occur very abundantly in these sputa, and being set free by the bursting of the parent cells, become scattered through the sputa.*

Hence we see clearly, that the formation of tubercles and tubercular matter is a very ordinary and natural process, varying in nothing from what takes place in other glands in a state of health. The only difference which exists in this case is, that in the pulmonary vesicles, by morbid action, exudation from the bloodvessels of an albuminous matter, or more or less plastic lymph, is produced, whereby the epithelial cells of the pulmonary vesicles swell up, become free, enlarge, and by endogenous cell-formation and fatty metamorphosis burst, and liberate the enclosed nuclei as sputum globules—a process which constantly takes place in the natural healthy state in other glands—for example, in the mammary gland, the cryptæ mucosæ, &c.—whereby these glands are always filled with a more or less albuminous fluid effused from the vessels. From this growth of tubercles it is, therefore, evident, that the greater or less solidity which is proper to them is not to be ascribed to the coagulation of fibrin effused in greater or less quantity; for tubercles consist, not of coagulated fibrin, but of swollen epithelial cells, which, through the constant access of fluid, effused serum, enlarge, and take up the more albuminous portion. If, finally, the bloodvessels and the walls of the pulmonary vesicles disappear, they may, from want of fluid, become firmer; but a coagulation of exuded fibrin, such as Rokitsansky speaks of, cannot be entertained; coagulated fibrin, as such, does not occur in tubercles. For these reasons neither can I agree with Schrant, that the proximate cause of the origin of tubercles lies in increased coagulability of the fibrin.† The exudation must, however, contain a certain quantity of albumen or fibrin.

For the explanation of the growth of a tubercle, and of its softening, therefore we as little require the hypothesis of a peculiar blood-crisis, to which its incapacity to pass to a higher formation should be attributed, as we need a blood-crisis to account for the formation of mucus and other secretions.

My attention was much arrested by the fact, that in incipient tubercles I often met between the larger tubercular cells, very fine transparent filaments (Fig. II. f), perfectly distinguished by their slenderness, weakness, and behaviour towards acetic acid, from elastic fibres, which cohered irregularly, and sometimes appeared to ramify. These filaments were still, for the most part, more or less granular. Some possessed perfectly smooth, even walls, and exactly resembled connective tissue; uniting

* It is, however, self-evident, that the sputa consist not merely of tubercular matter, but that, in a great measure, the product of inflammation or irritation, and increased secretion of the air-passages, and consequently mucus, is mixed with them. The more viscid the sputa are, so much the more is this the case. Once I received sputa for examination, which, on account of their fluidity, I could not perfectly seize with the forceps; they were thin as pus. Subsequently it appeared that they were pure pus, discharged from a neighbouring abscess into the larynx.

† Schrant, *Prijverhandeling*, vol. 1, p. 67.

in themselves all the characteristics of growing connective tissue, which, in this situation, is formed in the intercellular intervening matter as gelatine-yielding tissue, as my esteemed friend Donders has already pointed out.* In tubercles which were further advanced, and wherein the parent cells had for the most part disappeared, I no longer met these filaments. Probably they were dissolved by the subsequent fatty metamorphosis. They do not occur in sputa.

(To be continued.)

Selections from British & Foreign Journals.

CASE OF A FOREIGN BODY IN THE RIGHT BRONCHUS.—TRACHEOTOMY, EXTRACTION, AND CURE.

By MM. MARCEL and DELAHARPE Sr. & Jr.,
of Lausanne.

About noon, on the 11th of November last, a little girl, five years of age, was playing with some haricot beans, and swallowed one of them; we afterwards discovered it was one of the long, flat kind, a few inches long, and about half as wide. Convulsive cough, dyspnoea, and lividity of the face immediately came on, and lasted for a few minutes. The child then fell asleep, and slept until five o'clock, breathing *tranquilly*, but rather loudly. A fresh attack of the convulsive cough then came on, accompanied with profuse vomiting, and lasted for a very short time, after which the child fell asleep again, and slept until half-past eight o'clock, her breathing being slightly more laboured. She then woke in a fresh paroxysm, of still greater severity. Dr. Marcel was then sent for.

The absence of fever, the clearness of the voice, &c., removed all idea of the case being one of any of the usual local diseases of the windpipe; while the suddenness of the attack, the return of the paroxysms, followed by difficulty of breathing, but particularly the results of auscultation (when it was possible to practise it) proved the case to be one of a foreign body situated at the bifurcation of the trachea.

During a paroxysm, the respiratory murmur was equally weak and indistinct on both sides. Over the larynx, besides the sonorous rale, we found, on expiration, a very clear, soft, single *claquement* (*clouc clouc*). When the attack subsided, and the child lay on her back, we heard on the left side puerile respiration; on the right, very feeble respiratory murmur. After the next paroxysm there was no respiratory murmur audible on this side. Percussion was normal on both sides.

During one of the paroxysms we placed the child with her head downwards, and forcibly shook the chest, in the hope that the foreign body would fall through the glottis. This manoeuvre merely had the effect of increasing the dyspnoea and the lividity. On the contrary the paroxysm lost its intensity, passed away, and the breathing became more tranquil when the child was raised up and inclined backwards and to the left side. She was brought to the district hospital, and at half-past nine o'clock M. Marcel operated.

The thyroid body, being very large, required to be divided 4–5 lines in length; and this part of the operation was interrupted by two or three violent fits of coughing, which obliged us to turn the child over on her face. At each fit the wound was inundated by a

* See his important essay *On the form, composition, and functions of the elementary parts, in connexion with their origin*, *Ned. Lancet*, 3de serie, 1ste Jaarg, p. 2 et seq.; and *Tijdschrift der Maatschappij*, t. 1d. G., 2de Jaarg, Mei 1851, p. 125 et seq.

sheet of blood; an artery and vein required to be tied. We then divided the first two rings of the trachea, below the cricoid cartilage. In the explosive cough which always follows this incision, a large white bean twice glittered at the opening, and immediately fell back into the trachea. From what we saw of the foreign body in the wound, we judged that the latter required to be enlarged, and accordingly we cut upwards into the cricoid cartilage, and divided the third ring of the trachea. A profuse hæmorrhage from the capillary vessels brought on an attack of extreme dyspnoea. The blood flowed into the trachea; inspiration became impossible, and suffocation imminent. In her agony the child tossed herself about, and it became most difficult to pass any instrument into the opening; moreover, the blunt forceps introduced into the wound widened it sufficiently to allow the escape of the bean, but prevented the latter from reaching the opening. In fact, it struck the forceps two or three times, without making its appearance at the wound, where we were watching to secure it.

While we were getting another pair of forceps, better suited for the purpose, a fit of suffocation came on, more violent than any of the former, and obliged us to suspend all mechanical interference. In fact, the child was completely asphyxiated; her face became livid; she struggled horribly; her chest was drawn in and flattened; the point of the sternum seemed to touch the spine; not a particle of air entered the thorax. The child was then placed with its feet up and its head down, and scarcely a drop of blood tinged its lips. After a short spasm she lay back motionless, but her heart still beat. M. Delaharpe immediately tries artificial respiration, and at the first attempt succeeds. Air enters the left side of the chest, and is again forced out of it by compression. The child makes another ineffectual attempt to breathe, but the air will only enter the stomach, which it distends. Every new effort at inspiration distends the walls of the abdomen, which becomes completely blown up. The asphyxia persisted; the livid tongue hung out between the teeth; the eyes became highly congested, and dull; the skin of the entire body became cold, and the limbs had the cadaveric resolution. The only sign of life was the heart, which beat a little stronger than before. M. Delaharpe Sr., seized upon this moment to pass in a very small pair of Charrière's bullet-extractors, and forcibly flexing the neck backwards, and twisting the lower jaw to one side, he introduced the entire length of the forceps, and withdrew it, holding a large bean between its blades. Then we were enabled to force in air with greater chance of success, closing both the child's nose and the wound. There were soon some reflex movements discernible in the face and chest, and this latter began to assume a more natural shape. The face by degrees lost its deep colour; the eyeballs became less projecting, and the pupils less dilated; the pulse slowly returned, and at the same time the temperature began to be restored to the cold extremities. After twenty minutes from the commencement of this almost complete state of asphyxia, the child, although still in a comatose condition, was able to breathe without assistance, but very laboriously. To this state of coma and passive congestion of the head there succeeded, about half-past eleven o'clock, a sleep of more than an hour's duration, from which the child woke in very bad humour, when it found that when it wanted to cry, its voice was quite lost.

That night we left the wound open, as well to allow the air to enter with the greater ease, as to prevent a subcutaneous emphysema of the neck. On the following day we closed the edges of the wound by thin bandages retained with collodion. After this there was a daily improvement; everything went on well, and nothing remarkable occurred, except a very smart accession of fever. The wound closed by granulations, without anything else occurring worthy of observation.

This case establishes in a very remarkable manner the great importance of auscultation. By this means alone was an accurate diagnosis arrived at. Its results varied

from one moment to another, during each paroxysm, and during the intervals between them; yet they told exactly the nature of the affection, and the situation of the foreign body at each several moment. These variations themselves showed the mobility of the exciting cause, and could only be explained by its changes of situation. The to-and-fro sound of the foreign body (the *clouc clouc*) was only heard twice during the many fits of dyspnoea which supervened; we cannot, therefore ascribe much value to it in establishing a diagnosis.

The steps of the operation itself seem to us to suggest the following practical observations. However opinions may vary, as to the propriety of arresting, or not, all hæmorrhage, before opening the trachea, in the various affections of the larynx which require tracheotomy; in the class of cases which we are now considering, the operator can never be certain of being able to extract the foreign body immediately on opening the trachea, it therefore appears to us to be absolutely necessary that he should completely command all hæmorrhage, even from the capillaries, because a fit of coughing, varying in severity and duration, may supervene, during which a very small quantity of blood flowing into the trachea, will be quite sufficient to close up completely the already narrow passage which the foreign body has left for the transmission of air.

The trachea being endowed with very little sensibility in its inferior part, if a sufficiently large incision be made, we can, and ought without hesitation to introduce a narrow polypus-forceps or straight dressing-forceps to search for the foreign body. This recommendation we cannot find anywhere insisted on, nor do we know of any one who has practised it. The facility with which the bean was withdrawn in the above case leads us strongly to advise it. This facility, no doubt, arose from the comatose condition in which the child lay; but a few moments of severe suffering, while search is being made in the trachea for the foreign body, will spare the patient all the dangers which this child underwent while we were waiting to see the bean present itself a second time in the wound. We submit, therefore, the following rule:—If the foreign body does not, of its own accord, appear at the opening made in the trachea, and to which the efforts in coughing ought to direct it, we are, without waiting, to introduce a long forceps into the trachea, and pushing it on towards the bifurcation, endeavour to seize the foreign body in its blades, and extract it. In detailing the operation, we have described the position in which the patient is to be placed, and we need not recur to this.

At that critical moment when the asphyxia was complete, and the heart alone still continued in motion, the artificial respiration certainly brought back reanimation, and allowed of the foreign body being extracted.—*L'Echo Médical.*

ON MICROPIA PRODUCED BY THE LOCAL USE OF BELLADONNA.

By M. le Dr. CORNAZ, of Neuchâtel.

Of late years the medical journals have detailed several cases, in which a solution of belladonna, dropped into the eye, has caused a very curious phenomenon, making all objects appear very much smaller than natural. For this affection Donders has proposed the name of *Micropia*—one, certainly, much more suitable than *Microscopia*, by which it has been hitherto called. This affection appears to be of very rare occurrence; for, not to mention the numerous cases of poisoning by belladonna—in none of which, as far as we are aware, has it been noticed—the solution of belladonna, or atropine, is daily used to examine the interior of the eye, and nevertheless we cannot discover that micropia from mydriasis produced by the poison of the solanæ has been described before 1851.

Without investigating the explanations hitherto given for this fact (which all fail in this—that if they were

correct, this lesion ought to exist, at least more or less, every time that an artificial mydriasis existed) or dwelling on the line of treatment insisted on (which is only waiting until the belladonna ceases to act, or, at the most, applying cold lotions) we will detail here the particulars of some cases of this kind which we are acquainted with, because it is important that every surgeon should know exactly, not only the normal effects of every remedy which he makes use of, but those also which it may produce in exceptional cases.

CASE I.—In some cases objects appear smaller than they are in reality. The cause of this anomaly has not been clearly proved. It occurred once, in a very decided manner in my right eye, after a few drops of solution of belladonna, which has the effect of diminishing the refractive power of the eye, were dropped into it. In reading with both eyes, the left alone accommodated itself to the true distance, whilst the right, though open, interfered with my seeing clearly. When I closed the right, I saw perfectly; when I closed the left, I saw equally well at the distance of about a foot; but I had to make some effort to do so, and the letters appeared to me much smaller. When the belladonna had exhausted its action, this anomaly disappeared.—*Donders, Microscopie—Nederlandsch Lancet, 1850-1, No. 10, Avril.*

CASE II.—M. J. V. et. 40, of good constitution, never ill before, was for some time annoyed with *muscae volitantes*. The eyes showed nothing abnormal; there was no unusual vascularity; the pupil was moderately dilated, and very active; his present health perfect. There was no pain either in his eyes or head. The patient makes no complaint, except of the *muscae volitantes*, which are attributed to slight congestion of the retina.

To allow of more complete examination of the organ, a few drops of a solution of extract of belladonna were dropped into the eye in the evening. He passed a very good night, and on waking was astonished to find that all the objects around him had assumed a new appearance. The newspaper lay on a table near him, and on taking it up, it appeared to be composed of microscopic characters, which he could only decipher with great trouble, and thanks, he said, to his always having had excellent sight. However, objects appeared as clear as usual; they were not surrounded with a haze, or with luminous areolæ; their size alone was remarkably diminished. He rang the bell, and the servant who answered it appeared to him not taller than a girl of ten years old. He started up, more and more astonished. The clothes which he takes up are those of a child; however, he puts them on without any trouble. He goes down to breakfast, and instead of his wife and children seated around the table, he sees only a little dwarf and some dolls. His surprise and fright are extreme; he hurries off to his physician, but will not go alone, so great is his fright. The horses he meets appear to him dogs; the dogs rats. In a word, everything around him appears to him borrowed from the Lilliputian world—created by the imagination of the immortal author of Gulliver's Travels. During this time an examination of the eye only shows considerable dilatation of the pupil; nothing abnormal in any other part of the organ. Cold lotions were applied, and after the following day everything was restored to its original condition, except the *muscae volitantes*, which persisted.—*Warlomont d'une propriété peu connue de la belladone en instillations dans l'œil. —Annales d'Oculistique, t. xxix. (1853).*

CASE III.—A respectable tradesman was for a long time suffering from ophthalmia, which resisted all the measures used to subdue it. Tired of not gaining any relief, he applied to a quack, and got in return for his money a small bottle full of an infallible eye-water, of which he was to drop one or two drops into the affected eye.

At bed-time he followed accurately the pretended oculist's directions, and fell asleep. On waking the next morning, he found himself, to his great surprise, in a most diminutive room, lying in a Lilliputian bed, which, however, appeared too large for him. Astonished at the

sudden change, he rang his bell, and instead of his usual attendant he saw a little girl come in, who appeared not to understand one of his questions. He then looked for his clothes, but, like every thing else, they were of ridiculously small size. These trousers and this coat, thought he, will never be of much use to me; and yet he got into them with perfect ease. When he went down to the breakfast-room, where his wife and daughter were waiting breakfast, he thought he saw two puppets seated at a table which seemed to him some toy. In fact, he saw everything as if he was looking through an opera-glass reversed. Naturally alarmed at these persisting errors of vision, he sent, in a great hurry, for his physician, who ascertained that he was attacked with a very rare affection, known as *microscopia*. The oculist's drops had contracted the visual power of the optic nerve. A prolonged treatment restored the power of vision, but it has continued weak; and the man will long regret the confidence he placed in the vendor of charms.—*Journal de Méd. Chir. et Pharmacie, de Toulouse, Mai, 1857.*

Dr. Hoyack, of Amsterdam, has furnished me with the following case:—

A Dutch lady, 50 years, of a nervous temperament, subject to congestion of blood in the blood, (caused probably by her menstruation not being regular of late,) and neuralgia of the trifacial nerve, particularly of the supra-orbital branch, which tormented her excessively, asked my advice about a dimness of sight to which both her eyes, but more particularly the right, were subject. Examination showed that she had commencing presbyopia, complicated with slight amblyopia. In order to examine the interior of the right eye by means of the ophthalmoscope I dropped into it one drop of a solution of sulphate of atropine, which enabled me to discover a commencing cataract.

But it struck me as remarkable, that the patient said to me at the time that with this eye she saw objects smaller than natural, which gave her not a little uneasiness, and did not disappear until about six months afterwards. This lady lives in the country, and I did not see her a second time. This micropia persisted, although the pupil had some days afterwards resumed its natural size and mobility.

Although these are the only cases of the kind which I can of myself describe, the phenomenon has not been unnoticed by other physicians, among whom, besides Warlomont, we may reckon M. Siebel, of Paris, and M. Van Roosbroeck, of Ghent.

Would the micropia cease if the subject of it were to look through a very small opening, such as a pin-hole in a card? We are inclined to think it would, and invite those who may meet with such cases to try the experiment.

Would the phenomenon be reproduced every time that a fresh drop of the solution of belladonna were dropped into an eye which had once been so affected? Very probably; for, if we are not mistaken, its existence depends on a form of *idiosyncrasy*. This word gives no explanation of the thing which it designates, but we understand by it the unusual symptom which this or that substance produces in certain individuals; symptoms which have no relation with those which the same substance produces on the majority of people. It is thus that strawberries produce vomiting in some persons—an effort of the constitution to get rid of a poisonous substance; muscels, also, are said to produce urticaria in particular individuals; and an Italian journal relates the case of a conscript who was obliged to be invalided because he could not bear the yeast contained in the bread: certain odours constantly produce syncope in certain persons, &c., &c. It appears to me that micropia, from the use of belladonna, belongs altogether to this category of phenomena, inasmuch as it is not an exaggeration of the symptoms usually produced by this drug, but an occurrence altogether extraordinary.

Such would not be the case if intoxication or some general effect was produced in some few cases by the

local application to the eye of narcotic substances, such as belladonna, (Chassaignac,) and opium, (Wurster and von Ammon); in fact we would only see in that case increased susceptibility of the constitution to these medicines. Whatever be their exact nature, both micropia and the possibility of intoxication consequent on the employment of collyria of atropine, are two rare facts, of the possibility of the existence of which it is right that every physician should be acquainted.—*L'Echo Médical.*

OBSERVATIONS ON THE POISON OF THE UPAS ANTAR.

By PROFESSOR ALBERT KÖLLIKER.

During my stay in England, in the autumn of 1857, I was so fortunate as to acquire the rare poison of the famous *Antiaris toxicaria* (Leach.), with which no experiments have been tried since the time of Magendie, Brodie, Horsfield, and Schnell and Emmert (1809-1815). I owe my specimens of the Antiar poison to my friend Prof. Christison, of Edinburgh, who had it from Horneo, and to Dr. Horsfield, of London, who had collected it himself during his stay at Java in the beginning of this century; and as both specimens were fully active—as some preliminary experiments made in company with my friends, Dr. Sharpey and Dr. Allen Thompson, showed—I thought it well worth while to devote some time to the study of the poison, and to try to elucidate its manner of action on the animal organism. The following are the principal results which I obtained in my experiments with frogs, and I hope that they will not be deemed unworthy of notice by those who take an interest in the physiological action of poisons in general:—

The Antiar, like most other poisons, acts from the intestinal canal, and from wounds; but it must be remarked, that it is much more energetic and rapid when introduced into a wound. The symptoms which are observed in frogs, in the latter case, are the following:—First of all, the *voluntary movements* become less energetic, and at length cease totally, 30 to 40 minutes after the introduction of the poison (after 21st min. and 1st 21st max.). Then follows a time in which the reflex movements may be caused by stimulating the skin; but this faculty also is lost very soon, viz., at from 50 to 60 minutes (at 33rd min. and 83rd max.); and the animals die without the slightest trace of convulsions or tetanic spasm. If now the frogs are opened, we find that, without any exception, *the heart has ceased to beat*. The auricles are dilated, the ventricle corrugated, rather small, and generally red, as if blood had been extravasated into its muscular parietes; but very soon the exposure of the heart to the air causes the ventricle to shrink a little more, and to become pale and stiff, as if in the state of *rigor mortis*. All interior organs, especially the lungs, liver, stomach, intestine and kidneys, are gorged with blood and in a state of great, especially venous, hyperemia. The blood is fluid and rather dark, but soon coagulates when exposed to the air, and assumes a brighter colour. The lymphatic hearts cease to beat as soon as the reflex movements are lost. At the same time the nerves are yet found excitable, but their power is very low, and generally vanishes in the second hour after the application of the poison. The same must be said of the muscles, which contract very feebly when directly stimulated by galvanism, and in most cases lose their power totally in the second or third hour, and generally a little after their nerves. The *rigor mortis* begins early, sometimes in the sixth hour, and is generally well established at the eighteenth hour.

Amongst all these symptoms, to which we may add some signs of vomiting occurring now and then, there was none which attracted my attention more than the cessation of the movements of the heart, considering the great energy which this organ possesses in frogs; and I tried, therefore, before all, to elucidate the action

of the Antiar upon the heart. For this purpose I instituted a new series of experiments, in which I exposed the heart by the section of the sternum, before the poison was introduced into a wound of the back; and in this way I easily got the result, that the heart ceases to beat as soon as *from the fifth to the tenth minute* after the introduction of the Antiar; and so, that first the ventricle stops, and half a minute or one minute later, also the auricles. Now, as the frogs at this time are not at all deprived of their faculty to move, we may have the rather astonishing view of an animal, with artificially-paralysed heart, which moves and leaps as freely as if nothing had happened.

The experiments just mentioned prove, that the *first action of the Upas Antiar is to paralyse the heart*; and I am therefore quite in accordance with Sir Benjamin Brodie, who, by his experiments on mammalia, came to the same result in 1812; whilst I cannot otherwise than disagree with Schnell (*Diss. de Upas Antiar*, Tubingæ, 1815), who assumes that this poison acts in the first place on the spinal marrow. Now this point fixed, the further question arises, whether the other symptoms mentioned, viz., the paralysis of the voluntary and reflex movements, and the loss of the irritability of the muscles and nerves, are only the results of the paralysis of the heart, or must be attributed to a specific action of the Antiar. For the elucidation of this question, I found it necessary to study the consequences of the suppression of the heart's action on the organism of frogs, which I did in the same way as it had been done by others, especially by Kunde (*Müller's Archiv*, 1847), viz., by cutting out the heart, or by putting a ligature around the base of it, so as to stop the circulation totally. The results of these experiments were in both cases the same, that is to say, the voluntary movements ceased in from 30 to 60 minutes, and the reflex movements after one or two hours. Hence it follows that these two symptoms of the poisoning with Antiar are simply dependent on the paralysis of the heart caused by it. With reference to the irritability of the muscles and nerves, on the contrary, it is easy to show that the ligature or excision of the heart has not the same influence as the Antiar, inasmuch as in the first case the muscles and nerves are found irritable six or seven hours, and more, after the experiment has been made. Therefore it may be said that the Antiar has a direct action on these organs.

These points once demonstrated, there remained one more question to elucidate, namely, whether the Antiar acts only upon the muscles, or also upon the nerves. If we consider that the Antiar undoubtedly paralyzes the muscles, we may easily see that the loss of the excitability of the nerves possibly depends merely upon the impairment of the muscular contractility, and is therefore not real, but only apparent. With a view to determine the real state of things, I tried a third series of experiments—poisoning frogs in such a manner that the muscles of one limb were kept free from the influence of the poison. This was done in two ways: first, by putting a ligature round the crural artery and vein of one leg; and secondly, by cutting through a leg entirely, after the ligature of its vessels, with the exception only of the ischiadic nerve. In poisoning frogs treated in one of these ways, through a wound of the back, I found that, with the exception of the heart, the Antiar acts in the first instance upon the muscles. This is shown by the fact, that in the second hour, at the time when the muscles of the poisoned parts have lost their irritability, the nerves of the sacral plexus in the abdomen still possess their full influence upon the muscles of the leg which has been kept free from the action of the poison. One might be inclined from this to conclude, that the nerves are not at all acted upon by the Antiar; but this inference would be erroneous. In fact, the experiments just mentioned, if followed a little longer, show that in the third or fourth hour the sacral plexus also becomes inactive, at a time when the mus-

cles of the non-poisoned leg are fully contractile. The Antiar, therefore, paralyzes also the nervous trunks, but later than the muscles.

From all these experiments, it seems to follow that the Antiar is a poison which acts principally upon the muscular system (the heart and the voluntary muscles), a conclusion, in favour of which I may further add, that the muscles and heart of frogs poisoned by Urari (Woorara Curare) lose their irritability totally, and in a short time, if Antiar is introduced into a wound some time after the Urari. If we consider that, as I have shown (see *Proceedings of the Royal Society*, 1856, p. 201), the Urari only acts upon the terminations of the nerves in the muscles, and does not affect the irritability of the heart and muscles at all, we may conclude, that a poison, which, as the Antiar, is capable of paralyzing the muscles after the Urari, has really a direct action upon the muscular fibre.

The results of my investigation into the effects of the Antiar upon frogs, are therefore the following:—

1. The Antiar is a paralyzing poison.
2. It acts in the first instance and with great rapidity (in 5 to 10 minutes) upon the heart, and stops its action.
3. The consequences of this paralysis of the heart are the cessation of the voluntary and reflex movements in the first and second hour after the introduction of the poison.
4. The Antiar paralyzes in the second place the voluntary muscles.
5. In the third place it causes the loss of excitability of the great nervous trunks.
6. The heart and muscles of frogs poisoned with Urari may be paralyzed by Antiar.
7. From all this it may be deduced, that the Antiar principally acts upon the muscular fibre and causes paralysis of it.

So much for this time. My experiments with the Antiar upon warm-blooded animals have only begun, and I am not yet able to draw any conclusion from them. As soon as this will be possible I shall take the liberty to submit them to the Royal Society, together with the results of my experiments with the *Upas teinté*, which poison I had also the good fortune to obtain through the kindness of Sir Benjamin Brodie and Dr. Horsfield. With regard to the Antiar I may further add, that experiments made independently, and at the same time, by my friend Dr. Sharpey with this poison, have conducted to the same results as my own.—*Proceedings of the Royal Society*.

ON THE VALUE OF TONIC TREATMENT IN SOME DISEASES OF THE BRAIN,

MORE ESPECIALLY IN CASES OF RAMOLLISSEMENT.

By FREDERICK C. SKEY, Esq., F.R.S., F.R.C.S., &c.
Surgeon to St. Bartholomew's Hospital.

I wish to speak to-day of what is called "Ramollissement,"* or softening of the brain. I do not wish to speak of its pathology, I know very little about that, as to whether it is inflammatory or febrile, or what not. All I pretend to know or to tell you is that the disease, as we see it, begins insidiously by loss of muscular power, and it occurs most frequently in men about the middle period of life; the gait or walk of such a patient is unsteady, and it seems natural to ask a surgeon what may be the cause of this unsteadiness or irregularity. A banker or banker's clerk finds his style of writing changes; he has power, *quoad* power, he can use a dumb-bell, but he cannot regulate this power so

as to write a letter, as he previously had done; his urinary system becomes affected, and his urine dribbles away, and even the rectum, from forgetfulness on the part of the patient, becomes partly paralytic; there is loss of memory or incoherence of ideas, small eccentricities appear. This man will spell some words badly; these are signs of recent cases: there is little or no implication of the reasoning powers, at least to any extent, but the loss of power, as in handling a pen to write, is most peculiar, as well as the irregularity of spelling of monosyllables badly or backwards in what is written. But if you wish for a more minute description of the disease you will find it in the works of Rostan and others. Now, these cases are common; this train of symptoms occurs in men who have undergone long anxiety in business, or otherwise; men of Parliament or the Stock Exchange, whose "all" may sometimes depend on some bold speculation, or on some cargo of goods at sea, or the like; or this disease will occur in men who have had exhausting fevers or other maladies; or again, in the case of a man who rides with hounds five days a week, four hundred miles a week, and it may be, drinks wine, eats very little, marries late in life, suffers from vinereal exhaustion!—his nervous system becomes "broken down," as it is called. What is the condition of the brain then? Is it a condition of excess of vascular or vital force, or the opposite? Can any of you recollect a case of "ramollissement" as it used to be treated a few years ago? Happily for yourselves, perhaps not; but the principal point was to keep always in mind "chronic inflammation," and to treat it accordingly. This poor gentleman must first be reduced, made to keep quiet, his diet regulated, his wine and fox-hunting stopped, and three grains of grey powder with rhubarb, given at clock-work intervals, for what are called the "secretions," or to touch the gums for this chronic (?) inflammation. Next, his skin was steadily looked to, and that great catholicon of surgery lade, mindererus spirit, with antimony, was ordered, spoiling what little appetite the unfortunate patient may have had. He was rigidly confined to the house—but, mind you, with all this excellent drugging his speech does not improve; he progresses, but it is from bad to worse. Very well! Now that is one view—now for another. Mark that there is a slow pulse, everything is below par, as I call it. In this, then, "chronic inflammation," some people count on their ten fingers all the drugs I use or adopt. I am very glad of it, for we have too much routine and rubbish in what is called "general practice." The eyes of the public are upon us; are you then justified in lowering this man with your antimony, and your grey powder, and your mindererus spirit? Oh no! But some Solon says you weaken the patient in order that he may get strong. In these cases I could never understand that kind of logic; believe me, if you wish to succeed in practice, you must give up such an idea; you must study nature a little more, and books and journals less. All the medical world of Europe is progressing; but we are still tied down to grey powder, and oceans of physic, and bleeding, whereas what is required is that we follow the *vis medicatrix*, and take advantage of the hints she affords us! Well, then, so much for that; now for a case of "ramollissement" as it is called. About two years ago a physician called on me; he said, "you are wanted down to So-and-so (150 miles in the country), Mr. So-and-so (a rich country nobleman) has forced a catheter through his urethra; the poor gentleman has got 'ramollissement,' you know that we are not so uneasy about; that is incurable of course; if you can do anything for it well and good; but his faculties are completely gone." Well, to make a rather long story short, Sir B. Brodie and I saw him, and a fortnight after he came up to town, to his residence in Belgrave-square, and I had nearly the entire management of the case.

It is exactly in this sphere of life, of rich noblemen, merchants, or political men in the fashionable West-

* Rostan did not believe "Ramollissement" to be the result of inflammation, but of a certain degeneration of the brain; especially as febrile symptoms and headache are absent.

end squares, that we can alone catch glimpses of these two opposites—viz., the excess of high living, and the excess of sangrado bleedings and starvation or low living of us the doctors! Many of these cases are probably "heart disease," and a patient dies of a fainting fit, called weak brain, but it is weak heart! Well, the more I came to look at this case of this gentleman, the more I said to myself, the man is dying of exhaustion; I noticed he was better after dinner; I heard that he had had convulsions; this did not frighten me. Now, I want to ask you a curious question; have you ever seen a sheep killed? If not, I would advise you the next time you are near Aldgate Market, just to look at the thing for yourselves. Just before all the blood is gone from the sheep, it is horribly convulsed; remember that fact also in weak children who are convulsed. Convulsions, in fact, as you will meet them in practice, are eight times out of ten the result of a very irritable state of the medulla oblongata or chord, which causes very slight irritations elsewhere to excite violent reflex or convulsive movements; thus, worms or indigestible food will cause convulsions where the nervous centres are weak or irritable. This condition of convulsions to my mind is almost always one of "exhaustion" rather than congestion; just mind that fact when you go into practice—convulsions, as caused by anæmia or "exhaustion."

But to go on with the case, I could not find that this gentleman had had any tonic treatment. I knew that if the brain be anæmic, it cannot go on long in a normal manner, for nine out of ten cases of "ramollissement" are due to anæmia; so I decided to let him go back to his old mode of living. I gave him a pint of claret a-day, that he was accustomed to, in place of water-gruel! He seemed to improve on it. The ratiocinations of his friends did not come true that it would kill him, so we let him have also quinine and iron in place of leeches and water-gruel, and grey powder, antimony, and mindererus!

I studied the case for a short time; there was a manifest improvement every week. I was called one day; he was a little worse; did I bleed him? No; I had the experiment with the sheep in my mind; he is a gentleman of very great eminence. It would have appeared very brilliant in a "bulletin," like the brilliant operations elsewhere, that we came up the fifty-ninth minute of the last hour of his sad existence and opened the carotid or temporal, but I did nothing of the kind: I increased his wine. Well, at the expiration of three months, that gentleman made a political speech that utterly astonished his constituents. He can now ride to the foxhounds as well as ever he did, and in the changes and chances of Parliament has filled a very important place; he is in fact to all intents and purposes cured!

Now, a few words on another case. I was called to see another gentleman, who, I was told, was attacked with "epileptic or some fits" every fortnight. I found they were not perhaps epileptic, as he was never incoherent or deprived of consciousness.

He was a "*bon vivant*," as many of these patients are. The symptoms came on two years previously; his pulse was all along small and weak, quite incompetent to the work, as I thought, of supplying a large and active brain. His doctor had ordered him, as a great stretch of the roborant plan, two wine-glasses of claret at dinner, mixed with water, and pump water, "*usque ad nauseam*," the rest of the day. How can you prevent or cure disease on such trash as that? Mind you, he was a "*bon vivant*," and had now come to believe that the cardinal point of his cure was rest and starvation. Well, I ordered him the first day a thing he very much wished for—two rattling tumblers of Bass's best ale per diem, and other treatment in accordance with that plan; he got better. His lady sent for me, however, one night, and I met her on the stairs looking very dolorous indeed. I thought he was dying, or dead; but she said, with a solemn face, "he took

advantage of our prescription, what *will* become of him? He has taken to-day seven tumblers of ale!" "The deuce he did; but he is the better of it. I am delighted," I said; and it really did him no harm but good: he had ridden twelve miles, and was tired, and quenched his thirst in Bass's ale accordingly! Now, that gentleman soon lost his fits, or at least he had a slight fit once in three months in place of once every fortnight. He got on most famously under the strengthening plan, as in the former instance; but in an evil hour he went down to the country in the summer, and on the return of his "fit" the next-to-hand surgeon, with a red lamp, was sent for, who bled him, gave him the orthodox doses of calomel and colocynth, followed up by—and—yes—but he never breathed again!

I have had now nine or ten of these cases of ramollissement; they all have had slow pulse—a condition always improved by tonics. The heart is perhaps at the root of the disease rather than the brain; some of these patients had alarming syncope—that is, heart, depend on it, not brain. I met Dr. Latham and Dr. Ferguson with one case, and we had a good deal to do to give force to the heart and pulse.

Now, I do not want at all to say—that in some of these very cases we may not have had "ramollissement." I merely contend for the position, that leeches, oceans of physic, and starvation, are not the proper remedies. I will only say a few words relative to another case, which was seen by three of our ablest physicians in London—two pronounced it "ramollissement," and the third "tubercle." I think tubercle in the brain is a very rare disease in adults; this patient had excessively weak pulse; he had married late in life, and in many other particulars he was the exact counterpart of the case already given; he was rather forced on me as to treatment. I gave him wine and the ferrocitrate of quinine in large doses—a remedy I have great faith in. Well, in three months he was quite recovered. I have said already I do not believe this disease to be of the nature of inflammation; with heat, pain, redness, swelling, &c., it strikes me as rather of the nature of gangrene, and as arising from anæmia, not hyperæmia; this last gentleman, I ought to say, had an issue ordered for him in Dublin. Well, I have no objection to an issue in these cases, nor am I frightened at stopping an issue. There is something of the fabulous about what is written and taught in lectures as to stopping issues. This gentleman's issue healed up, or rather I took off the plaster, and never had that abiding faith in its efficacy that would induce me to put it on again. In the earlier stages an issue may do good; it can at least do no positive harm, like other things which have had more than a questionable character, as specifics for "ramollissement;" indeed, specifics so called, which unquestionably have hurried many patients to their graves, and which I would implore you to consider well in all their bearings before you adopt them.

SUBSTITUTE FOR LARD IN OINTMENTS.

TO THE EDITOR OF THE PHARMACEUTICAL JOURNAL.

SIR,—In consequence of the objections to lard in the making of ointments, I was led to try an experiment, for the purpose of producing an ointment which would readily wash from a wound without the addition of soap or any other agency save water, of good consistency, not variable with change of temperature, easily miscible with substances soluble in water, and free from oxidation. As far as theory goes, I can see no evidence to show why the following formula could not be advantageously adopted:—

B Powdered Fuller's Earth
Glycerine aa ij M.

The fuller's earth should be in an impalpable powder, and to produce this with the least degree of trouble, I place a quantity of the earth in a dish, and pour a littl-

water on it. In a few minutes it is perfectly slaked. Place it in the oven to dry. When perfectly dry, powder it, and pass it through a fine sieve. Of this powder and glycerine take equal parts, and mix thoroughly in a jar with a palette knife, *without* the aid of heat. Its consistency is perfectly under the control of the operator, as he can modulate the quantities of the earth or glycerine to suit his purpose. The *healing* and *non-irritating* qualities of fuller's earth need scarcely be alluded to, but it appears to form an item in its favour. I may also state that it is easily miscible with fats, if required. This appears to be owing to the peculiar solvent action of the fuller's earth on greasy substances. It will not be so liable to irritate as starch, on account of the healing properties of the earth. The subject is worthy of investigation; and if those interested in the subject would consider the matter, I have little doubt but that there may be merits found connected with the formula which at first sight may not appear.

Feb. 15, 1888.

JAMES J. T. W. SMITH.

CHANGES IN THE ARMY MEDICAL DEPARTMENT.

RECOMMENDED BY THE ROYAL COMMISSION.

EDUCATION OF THE ARMY MEDICAL OFFICERS.

As regards the qualifications to be required of the candidates previous to examination, we recommend, that in all cases such certificate as would qualify a civilian to practice Medicine as well as Surgery should be exacted of the candidate, and that the examination should comprise some test of general education.

We further recommend, as regards both Surgical and Medical knowledge, the addition of a practical to a theoretical examination.

That this examination be competitive, and be entrusted to a body of practised examiners, as is now done by the East India Company, and we think it desirable that, if possible, one and the same board should conduct the examination for the Medical Service of the East India Company, the Navy, and the Army.

That after the first examination, the candidates be sent to a military general Hospital, there to go through a course of instruction in military hygiene, and in clinical military Medicine and Surgery, for which purpose the necessary Professional chairs, in lieu of the two now existing in Edinburgh and Dublin, should be instituted at the principal general Hospital in England.

That during their residence at such general Hospital all the probationers be accommodated with quarters, and shall receive such rate of pay as may be sufficient for their subsistence. That the course shall not be less than six months previous to an examination on the subjects of the course, on passing which the probationers shall be eligible for appointments as Assistant-Surgeons, and that, if possible, their first appointment be to a regiment.

That an examination in the practical knowledge of his profession as a military Medical Officer be passed by the Assistant-Surgeon before promotion to a Surgeoncy.

That leave of absence be granted for attendance at Hospitals and Medical Schools.

That Medical Officers be permitted to take private practice, under such regulations as may insure attention to military duties.

PAY AND RETIREMENT.

We recommend that the regulation which requires officers of the department, when promoted, to serve for one or two years on a lower rate of pay than that to which from their length of service they are entitled, be abolished. We are of opinion that a considerable augmentation of the pay and retiring allowances, but es-

pecially of the former, is necessary to the interests of the service; but we must leave the adjustment of the details of pay of each rank to the Executive Government.

We are of opinion that the granting of a limited number of good service pensions to the officers most distinguished for their zeal and efficiency is due to the department, and will act as a wholesome stimulus to its officers.

We consider compulsory retirement at 65 years of age for the Inspectorial ranks, and 55 years of age for the executive ranks, to be absolutely necessary for the efficiency of the service.

PROMOTION, ROSTER OF SERVICE, AND RELATIVE RANK.

We recommend that the rank of first-class Staff-Surgeon be abolished, and that Regimental and Staff-Surgeons, now called Second-Class Staff-Surgeons, should, after twenty years' service, be styled Surgeon-Majors, with a small addition to their pay.

That the rule of seniority be strictly maintained in the promotion of Assistant-Surgeons to the rank of Surgeons, except in cases of incompetency or misconduct; and that no exception be made to this rule save for distinguished conduct, when the services for which the officer is promoted shall be published with his name in the 'Gazette.'

That the seniority be that in the Army, without reference to the station on which the officer to be promoted may be serving. That promotion to the ranks of Deputy-Inspector and Inspector-General be by selection for merit; and that, in the recommendation to the Commander-in-Chief, the Director-General shall state the position on the Army List of the officer recommended, and the grounds of the selection.

That any confidential report by which the character of an officer is unfavourably affected shall be always communicated to him, and an opportunity given him of offering his explanation in defence.

We recommend the establishment of a roster of service, subject to this condition, that the amplest discretion be vested in the Director-General, to select for each station the principle Medical officer whom he may think, from experience and character, likely best to discharge any peculiar duties which may attach to the Medical charge of that particular station.

That the relative rank of the Army Medical officers of distinguished merit be styled Honorary Physicians and Surgeons to your Majesty.

That the Army Medical Department be held entitled to the same share of honours and rewards as combatant officers of the same rank.

That in the Army List the Medical Department should have precedence of the Commissariat, and that their names should appear according to their rank, with the dates of their commissions, in the list of the regimental staff, and that the whole regimental staff be placed before the list of captains.

That a limited number of good-service pensions be granted to Medical officers for distinguished service.

Lastly, that new regulations as to pay and retirements, promotion, rank, honour, and rewards, be embodied in a Royal Warrant for the regulation of the Army Medical Department.

CONSTITUTION OF THE ARMY MEDICAL DEPARTMENT.

We recommend that the Director-General should have three colleagues associated with him, selected for their eminence in medical, sanitary, and statistical knowledge respectively, and to be appointed by the Secretary of State for War. These officers would act as the Council of the Director-General, and should have the power of submitting any questions to the Board, and of expressing their opinions in writing. All matters of routine would be referred to the head of the branch to which they belong, and only such matters should be subjected to the consideration of the

Council as are of importance. Minutes of all proceedings of the Council should be recorded by the Secretary, but the Director-General, acting upon his own responsibility, might disregard those opinions if he considered it necessary, recording his reasons for so doing. We recommend that the appointments on the Council of the Army Medical Department should be held for five years, subject to re-appointment at the termination of that period, if the interests of the public service should require it; and that a similar regulation should apply to the Director-General, a longer period, however, being fixed for the tenure of his office.

We feel it our duty strongly to recommend a revision of the salary now attached to the office of Director-General.

With a view to give immediate effect to these recommendations, we beg to suggest, in addition to the Commission to inspect the barracks and hospitals as already advised, the appointment of committees to draw up a scheme for the re-organization of the office of Director-General; to frame a draft warrant regulating promotion; to draw up a scheme for the proposed Medical School; to revise the regulations; and to arrange the basis and forms on which the statistics of disease and mortality of the Army are henceforth to be collected and recorded.

DEATH OF BENJAMIN TRAVERS, Esq., F.R.S.

We have this week to announce the death, in the 75th year of his age, of Mr. Travers, Surgeon-Extraordinary to the Queen, and Surgeon in Ordinary to H.R.H. the Prince Consort.

Benjamin Travers was born in 1788. His father was a sugar-baker in Queen-street, Cheshire. He was early sent to a grammar school at Cheshunt, but afterwards was educated by private tuition, and then was placed in his father's counting-house. He entertained a great dislike to mercantile pursuits, which increased as he became more acquainted with them, until he determined to embrace the medical profession, and was accordingly, in 1800, apprenticed to Mr., afterwards Sir, Astley Cooper, and was his first articulated pupil. He was a hardworking student, and gave demonstrations in anatomy to younger pupils, and also established, and acted as secretary to, a clinical society. He took his diploma in 1806, and then went to Edinburgh, where he repeated some of Bichat's experiments on the blood.

In 1807, he returned to London, but notwithstanding his large city connections, practice did not immediately come to him. He demonstrated and lectured on anatomy in a little room in Guy's Hospital; but his father's affairs had become greatly embarrassed, and he had actually made up his mind to obtain an assistant-surgeoncy in the East India Company, when the appointment of surgeon to that Company's Corps of Volunteers became vacant, and this post he obtained, although it was also solicited by Mr. Ramesden, of St. Bartholomew's Hospital, and Mr. Lucas of Guy's.

In 1810 he became surgeon to the London Infirmary for Diseases of the Eyes, since called the London Ophthalmic Hospital. In his address to the governors of that institution, he especially points out, that he desires to take the appointment, not as an oculist, but as a surgeon—a phrase which is remarkable from the fact that he was the first surgeon who had given more than a mere passing attention to the diseases of the eyes. Previous to the commencement of the present century, ophthalmic practice was chiefly in the hands of quacks, who went about the country performing operations on the eyes with equal boldness and ignorance. Therefore the assumption of this branch by one who wished to make it a part of scientific surgery was a great advance.

In 1813 Mr. Travers was elected a fellow of the Royal Society; in 1815 he was appointed surgeon to St. Thomas's Hospital, and in the following year he took Mr.

Cooper's house in Old Broad-street, and then his practice became both large and lucrative, amounting to about £6000 a year. His health, however, was not good; for although of robust build and large frame, he was subject to a functional derangement of the heart, with occasional fainting, which obliged him to forego part of his extensive practice. It was, we believe, with the intention of diminishing his labours that he removed, in 1828, from the City to Bruton-street, where he at once took a high position, but not the highest, Sir Benjamin Brodie having already established himself in the first rank. This step, taken, we say, with the intention of decreasing his professional occupations and of recovering health, perfectly succeeded. In the same year he became president of the Medico-Chirurgical Society; in 1833 he was elected on the Council of the Royal College of Surgeons, and subsequently became an examiner. He has filled the offices of vice-president and president to the College, and was the Hunterian orator in 1838. He was appointed Surgeon-Extraordinary to the Queen soon after her accession, and became afterwards Surgeon in ordinary to Prince Albert. Thus he has taken most of the honours usually within the reach of distinguished surgeons, without, however, obtaining the highest distinctions granted to the profession.

As a lecturer, Mr. Travers was scholarly and illustrative. He was a sound anatomist, but was never celebrated for a rapid and dashing style of operating; but if safety be considered as a test of good surgery, this quality must be conceded to him. It has been with justice remarked, that Mr. Travers, although a distinguished surgeon, would have been a greater physician; and an examination of his writings shows that his mind was more especially turned to what may be called the medical aspects of surgical disease. The number of his publications is considerable, and may be classed in formal volumes, as clinical lectures published in "St. Thomas's Hospital Reports," and as papers in the "Medico-Chirurgical Transactions." The clinical lectures are ten in number, and call for no special notice; the papers in the "Medico-Chirurgical Transactions" are also ten, the last of which, in the twenty-first volume, is the record of his operation for the removal of a diseased clavicle, the subject of which quite recovered the use of his arm. The formal volumes are, "An Inquiry into the Process of Nature, in Repairing Injuries of the Intestine," published in 1812. The "Surgical Essays" of Sir Astley Cooper and Mr. Travers were published in 1818; the papers which the subject of our memoir contributed were on Iritis, Phymosis, and Paraphymosis, and on Wounds and Ligatures of Veins. In 1820 appeared "The Synopsis of the Diseases of the Eye, and their Treatment;" in 1824, "An Inquiry concerning the Disturbed State of the Vital Functions usually denominated Constitutional Irritation;" in 1830, "Observations on the Pathology of Venereal Affections;" in 1835, "A Further Inquiry concerning Constitutional Irritation, and the Pathology of the Nervous System;" in 1844, "Physiology of Inflammation and the Healing Process." It is by these works, perhaps, that his reputation as a philosophic writer of a high order was most firmly established. The intention and spirit of the work was to arouse the minds of the Profession to a scientific study of the laws which regulate the vital functions in health, and their derangement in disease, and on this foundation to build a rational system of surgical pathology.

During many years of his life Mr. Travers had suffered from occasional attacks of palpitation of the heart, and though there might not have been direct relation between the two, his death was caused by pericarditis. For the last two months he had been confined to his room by pain in the leg, and other symptoms indicative of disease of the blood-vessels. His medical attendants, Sir B. Brodie and Dr. Bright, entertained no doubt of the character of his disorder, and anticipated the usual result, though the immediate cause of death was some-

what unexpected. We may add, since learning the result of the *post-mortem* examination, that the immediate cause of death was pericarditis, accompanied by dilatation of the auricles, together with a general softening of the muscular structure of the heart. The serous membrane was firmly adherent to the surface of that organ in many places, showing that this change was chronic, or of long standing. One of Mr. Travers's earliest and most distressing symptoms was intense pain in the sole of the left foot, extending upwards in the direction of the posterior tibial vessels. After death the arteries half way up the leg were found filled with a false membrane or lymph layer; and it is stated that in one place the posterior tibial artery was thickened to obliteration, or nearly so. Several gall-stones were found in the gall-bladder. The other great organs did not appear to have undergone any diseased change of importance. Mr. Travers died suddenly, being at the moment in bed, where he had lain for many weeks in a semi-erect posture.

Mr. Travers was tall, large-framed, and well-proportioned, with a highly-intelligent and pleasing countenance. His manners were prepossessing, and in consultation with his professional brethren he showed a high-bred courtesy which marked the refinement of his mind. He was ever popular, whether in the profession or out of it; and the announcement of his death will be received with heartfelt regret, both at home and abroad.

Correspondence.

TO THE EDITOR OF THE DUBLIN HOSPITAL GAZETTE.

SIR,—In a letter which Dr. Bernard, of Dundrum, has favoured me with, on the subject of my late communication in the *Gazette*, on Anomalous Scarlatina, he requests me to "rectify a mistake" which I have fallen into, in not noticing a case which occurred in his practice, and which Dr. Graves published in the *Dublin Quarterly Journal of Medicine*, (vol. 8), 1847). I was not aware that Dr. Graves had mentioned this complication, for I referred to his "Clinical Medicine," chiefly for the purpose of ascertaining if the physicians who communicated to him the results of their experience of the epidemics of scarlatina had noticed any case in which such a universal tendency to the deposition of pus existed, as was presented in the case I have reported. I found no such case. The "Clinical Medicine" published subsequently to the paper by Dr. Graves, in which Dr. Bernard's letter is to be found, containing the accumulated experience of a great number of practitioners in different parts of Ireland, as well as his own, is silent on the subject.

I do not consider Dr. Bernard's case identical with mine, for not only was the pyogenic tendency more marked in the latter, but, in addition, the synovial membrane was not in a state of "*chronic suppuration*," which Dr. Graves supposed was its condition in Dr. Bernard's case, and in which Dr. Graves says operations may be performed on the joints with "*comparative impunity*."

I am, Sir, your obedient Servant,

J. T. BANKS.

AMONG the prizes lately awarded by the Academy of Sciences in Paris, was one to Herr August Müller of Berlin, for his discovery of the metamorphosis of the river lamprey (*petromyzon planeri* of Blainville). He states that he has demonstrated that the *ammocetes*, hitherto regarded as a distinct genus of cyclostomatous fishes, is merely the larva of the *petromyzon*, bearing

the same relation to it as the tadpole does to the frog. This interesting discovery opens a new field of investigation in regard to fishes, in whom larval metamorphoses have not, as far as we know, been hitherto observed. The subject is one, to which those among our readers who delight in natural history, will doubtless be tempted to turn their attention.—*B. Med. Jour.*

THE MANUFACTURE OF BUTTER WITHOUT MILK.—It is reported that in Hamburg and Leipsig, butter is now made from olive oil, the latter being obtained from colza oil by the following process:—Put sixty pounds of the latter kind of oil into a carefully-tinned brass boiler, twice as large as the quantity of oil would require; add two pounds of potato-starch, and stir with a wooden rod until the oil begins to boil. The latter will froth up very briskly for about twenty minutes, but this will gradually cease; the boiling becomes gentler, and the starch takes a dark-brown hue. The boiling should be allowed to continue for a few hours, until the oil has lost all disagreeable smell or taste. Decant into a clean vessel, and allow to cool. The charred starch forms a deposit, and, with a loss of only two per cent.; you obtain an oil of a golden yellow, of a very sweet taste, and not liable to turn rancid. When used cold, it is said to be as good as olive oil, and, for cooking purposes, to answer instead of butter or lard. To make actual butter with the colza oil thus prepared, half its weight of recently-melted suet should be added to it. The detection of this compound could, it seems to us, not escape a moderately good palate, or the simplest chemical process.—*Lancet.*

DEATHS.

DR. MACKENZIE, late Surgeon of the Oriental, died on board the *Pera*, on the night of February 23rd, and was buried at sea, with all due honours. He embarked at Alexandria, greatly debilitated.

DAVID LAKE FEWLAY, Esq., set 37, Surgeon of the *Parana*, died on board, of yellow fever, which has again broken out at St. Thomas.

PUBLICATIONS RECEIVED.

On *Pepéris*. By M. Boudault. Translated by W. S. Squire, Ph.D. Second edition. London: 1858.

Gleet: its Pathology and Treatment. By W. Dick, M.D. London: 1858.

A sketch of the Principles and Practice of Sub-cutaneous Surgery. By William Adams, F.R.C.S. London: Churchill, 1857.

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**Richmond, Whitworth and Hard-
wicke Hospitals.**

CLINICAL LECTURE

By DR. CORRIGAN,

Physician in Ordinary to the Queen in Ireland, &c. &c.

(Delivered March 3rd.)

Case reported by MR. CURTIS, Cl. Clerk.

*Bleeding Vascular Tumors of Rectum.—Anæmic
Bruit of Neck; most audible in right side of
Neck.—Reason of.—Diagnostic characters of
Venous Bruit.—Nature of the Hæmorrhage in
Simpson's case.—Similar Hæmorrhage sometimes
from Abscesses.—Treatment: 1st, immediate,
and 2nd, prevention of relapse.—Importance of
the observance of horizontal posture in action
of bowels.*

I propose in this lecture to draw your attention to the case of Bridget Simpson, a pale, anæmic-looking girl, aged about 20, who was admitted into Ward No. 2, Whitworth Hospital, January 21st.

She complained of severe intermittent pain of left side, accompanied with frequent palpitations, and of great debility. On examining the right side of the neck, over internal jugular vein, there was the usual venous murmur that is heard in chlorosis and in anæmia. You have always seen me first examine the right side of neck, a little above inner third of clavicle, when seeking for this venous murmur. The sound is generally heard in both sides, but is almost always loudest in the right side of neck, and is often plainly audible in that side when scarcely to be heard in left side. The reason I believe is, that the brachio-cephalic vein is on the right side much shorter, not more than one-third the length of that coming from left side of neck; and from this, and from its going more directly and more perpendicularly, when the patient is erect, into the descending vena cava than that of the left, the descending current of

blood rushes with more freedom into the cava, and produces a corresponding louder vibration in the walls of the vein, and of course a louder bruit. In seeking for it, always incline the head gently and slightly over the right clavicle, so as to relax the platysma muscle, fascia and outer portion of sterno cleido mastoid muscle, where it covers the vein. There is never any difficulty in distinguishing this venous murmur from arterial bruit. Arterial bruit is always synchronous with the diastole of the artery in which it is heard. This venous chlorotic or anæmic murmur has no relation to the action of the artery. It is generally very loud, either continuous or rising like the sound of a string thrown into an increasing swell of sound, or intermittent, but still having no relation whatever to arterial diastole. There is an additional diagnostic aid if you require it, viz., light pressure with the finger above the point of examination, while the stethoscope is kept applied. An exceedingly light pressure of the finger is sufficient to arrest the downward flow of blood along the internal jugular, and this at once obliterates the sound; a pressure so light as not to interfere with the action of the carotid, thus at once establishing the fact of the sound being in the vein and not in the artery.

I have digressed from the main subject of our lecture, but these observations on the chlorotic bruit of the neck may, perhaps, be better remembered when thus introduced, than if noticed in a more regular way.

In all classes of life in the female sex, particularly among the unmarried, you will meet with cases where the patient, like Bridget Simpson, will, from delicacy of mind, either not tell, or will even conceal the cause of the weakness, palpitations, and neuralgic pain which may have tormented her for years, viz., hæmorrhage from the rectum.

In Simpson's case we only learned from the nurse that there were great losses of blood, and on inquiry we found that Simpson, on having a desire to unload the bowels, frequently passed only a large coagulated mould of the pouch of the rectum. Under these discharges of blood she had been suffering for eight months, and the history is such as you v

meet with in nearly all such cases: the hæmorrhage, at first slight, gradually increased, occasionally ceasing for ten days or so at a time, but returning worse than before. Two months after the commencement, severe pain of left side, with palpitations, set in, the pain occasionally extending across to right side. You will do well to remember this case, for the disease, as I have said, is not uncommon, and the patient will often conceal it, and you are perhaps for months misled into treatment of every kind, of course useless, until you have learned the true cause of the symptoms, and you have thus been enabled to recommend the appropriate treatment. Such cases form the link between surgery and medicine, and show the great importance of cultivating both.

Your first step will be, of course, to ascertain the source of the bleeding. If you are content with an ordinary examination of the anus, you will see nothing, as in Simpson's case, but some small folds of skin at edge of anus, the covering of hæmorrhoids, occasionally prominent, but on getting her to strain strongly for a few minutes, as if to act upon the bowels, vascular tumors project through the sphincter. These are formed of the relaxed mucous membrane of the rectum with greatly hypertrophied villi, and from softness and prominence resembling mulberry, or rather raspberry fruit, from which resemblance the disease is sometimes called mulberry tumor of the rectum. The blood was seen to ooze out rapidly from all portions of these projecting tumors, as if welling from a squeezed sponge; and in cases where they do not, on mere projection, pour out blood, it is most often only necessary to draw the finger even lightly over their surfaces, when the filtering out of blood immediately commences, and proceeds in quantity you could at first scarcely credit. The hæmorrhage is not venous in colour, nor does it come with a jet as from an artery, but wells from the whole exposed surface, of a bright pink colour. Its colour and mode of exit should make us always remember, that in addition to the ordinary kinds of hæmorrhage, as noticed in your elementary treatises—viz., arterial and venous—there is a third, capillary hæmorrhage, in which the blood may be poured out, as in Simpson's case, without any apparent rupture, but merely from a highly vascular surface; and the rate at which it flows is occasionally very great. In this case, in a few hours sufficient would be poured into the rectum to form a full mould of it; and you saw it streaming from the whole surface of the projecting villous membrane when exposed. This form of hæmorrhage is not confined to mucous membranes; the interior of abscesses will occasionally take on the same action. In a case lately, in which Mr. Ousack, Mr. Fleming, and myself were in attendance, a subacute abscess had formed on the interior of the arm. On its fully pointing, with distinct fluctuation, and having first satisfied myself of the nature of its contents by acupuncture, I

opened it, when about one or two ounces of pus were discharged. Next day the abscess appeared as full as before, but blood began to flow; neither dark-coloured venous blood nor florid arterial, but of a pinkish colour, as in Simpson's case. After several days, the loss of blood continuing whenever pressure was discontinued for any length of time, Mr. Fleming opened the abscess through its whole length. On exposure of the sac its interior presented an uniform villous surface, intensely vascular. From this surface the blood which had flowed had been welling. No vessel could be found, on the closest examination. Direct pressure on the vascular surface arrested the exudation, and there was no return. In such cases, a person unaware of the existence, of the nature and rapidity of capillary hæmorrhage, might naturally suppose that some vessel of considerable size was pouring out the blood. In one of the most deservedly popular text-books on surgery in your hands, the form of hæmorrhage I am now noticing is not even glanced at.

We shall now revert to the particulars of the case before us. The disease, as exhibited in Simpson's case, is much more frequently met with in women than in men. There are obvious causes for this, in their more sedentary life, in the periodic determination of blood to the region, and in the formation of the pelvis itself.

It is not necessary to remind you, that the repeated occurrence of the hæmorrhage will give rise to the severest headaches and great debility, and to spinal neuralgia of a very excruciating kind.

Our treatment divides itself naturally into two parts—the arrest of hæmorrhage and destruction of the vascular prominences, and the prevention of their recurrence. Nothing is easier than the former, but the recurrence is frequent; and hence a patient, when the complaint returns after the lapse of one or two years, desponds, and submits to suffer, thinking the operation, if again submitted to, would be only again to bring the same temporary relief, and with subsequent return as before. I think I can give you, on principle, a rule that will assuredly prevent relapse; but first as to the immediate treatment. You saw what was done in Simpson's case. Her bowels having been previously acted upon, she was directed to strain upon the ordinary chamber vessel, with her knees doubled up, so as to force through the sphincter the prominent and vascular and relaxed mucous membrane. To the whole of this surface strong fuming nitric acid was freely applied, twice or thrice over, as rapidly as possible, and then the slender rod of wood, covered with lint well secured on it, and soaked in the acid, was passed up beyond the projecting circumference for about half an inch, so as effectually to cauterize the whole vascular surface. This is the easiest and surest way of applying it. Directions are sometimes given to use pencils of spun glass, and similarly nice contrivances. The best, safest, and simplest is what you saw used

here. This was done on the 28th, and from that date there has been only one return of the hæmorrhage; and then it was only slight, and returned from not complying with the rule I had laid down, and which I shall notice presently. In some case there may be a return of the hæmorrhage, to a small extent, when the slough is separating. It is not indifferent what caustic is used. The nitric acid has some peculiarities that render it peculiarly adapted to this disease. It does not produce the immediate gangrene that is the result of the application of potassa fusa, but produces instantaneous contraction of the capillaries, the blood leaving the part immediately on its being touched, which becomes at once grey, not black; and to a considerable extent beyond this, all round, the cellular tissue soon becomes firm, apparently from coagulation and deposition of lymph—the most favourable change for future contractile action; while the superficial portion gradually separates as a greyish slough. I have never seen any injurious effects whatever from the application of nitric acid, but I have seen death in two instances from tying these tumors, diffuse venous inflammation being the cause of death in both. As to cutting, it is, you know, altogether out of the question.

The application of the nitric acid is painful, and the burning pain continues for some hours. A full opiate internally, with lead lotion applied locally with lint, will afford most relief; but even on the question of pain, I think the comparatively short duration of that from nitric acid is preferable to the long-continued aching fullness and slow ulceration and separation of the parts when tied. A secondary hæmorrhage, too, although not to endanger life, is more liable to occur after application of the ligature.

After the application of the wet lint or poultice, so long as is necessary to relieve pain, it is better to discontinue its use, as the object next is to favour the consolidation and contraction of the effused lymph; and long-continued relaxing applications would be rather an impediment.

I have said there was but one return of the hæmorrhage, and that arose from the patient's own want of attention to my directions, which were, that she was always to preserve the horizontal posture while her bowels were being freed; and this leads me to the second and most important point, the mode of preventing a return of the disease. I have already told you, it is easy to effect a temporary cure; but the more important point remains—the prevention of relapse. This simple rule will do it:—Let the patient, for many months afterwards, invariably preserve the horizontal posture in the act of freeing the bowels. It is irksome at first, but habit soon reconciles the patient to it; and if you state, that unless this precaution be observed, all the misery of a relapse will be suffered, it will be adopted and persevered in. The use of the German bed-pan, which I procured for this patient, removes very much of the

discomfort. The ordinary bed-pan can only with some difficulty be arranged by the patient herself, and this constitutes one of the objections to following the rule; but the German bed-pan is easily managed without the assistance of a second person. In the case of a lady, where inability or reluctance to adopt this plan was insuperable, I had a high-backed slat-chair cut very short in its hind legs, so as to incline the back to an angle of about 45°. The seat was arranged to receive the ordinary bedroom appliance; and this approach to the horizontal position has sufficed, through a period of some years, to prevent any relapse.

I shall now say a few words to explain the principle of this rule. Congestion about the pouch of the rectum and verge of the anus is the great cause of the disease before us. That congestion depends on two causes—determination of blood, from mere vascular and vital action, and the influence of posture in forcing the blood into the vessels, and detaining it there. There are many circumstances more in the female than the male tending to increase the influence of posture in distending the vessels about the rectum: tight lacing, sedentary life, the periodical uterine determination, and large size of pelvis, with less firm support of the contained organs; but aiding this is the straining and low position often assumed in relieving the bowels, when almost all the muscles brought into action tend to distend the hæmorrhoidal plexus. You will admit, I think, that I do not exaggerate the influence of posture, when I remind you, that the disease we have described and hæmorrhoids are unknown in the horse, in black cattle (even stall-fed), and in sheep, or so rare, that some of the most experienced veterinary surgeons have never had an instance within their own observation. In all these animals their habitual posture relieves the hæmorrhoidal plexus and pelvic venous system from the injurious action of gravitation.

To understand still further the importance of this rule, simple as it seems, I must also remind you of some peculiarities connected with the hæmorrhoidal plexus of veins. It is the commencement of the portal system, and to relieve the gorging and distension that must result whenever the portal circulation is obstructed, the hæmorrhoidal plexus has another discharging outlet into the internal iliac, through which the blood can reach the general circulation by another route. You will have a correct idea of what I convey to you, if you suppose a tube of vulcanized india-rubber, with one extremity communicating with the portal vein, the other with the internal iliac vein and general circulation, and the middle portion of the tube coiled several times upon itself, to represent the hæmorrhoidal plexus, so as that blood impeded in its progress into the portal vein from the plexus, may pass through the other branch of the tube into the iliac vein, and thus reach the general current of the circulation without passing through the liver

This very provision, however, tends, in straining, and in the erect posture of our race, to produce congestion in the plexus, as, the large venous trunks being without valves, muscular straining and posture co-operate often together to distend the plexus. In a case of prolapsus of the rectum, which rendered life utterly miserable, the observance of the rule I have explained has been perfectly successful. The patient, a young woman, had suffered for years from prolapsus of the rectum, increasing to such a degree that at last, even in standing or walking, the intestine would suddenly protrude, and prolapse to the length of at least three inches. I need not describe to you the consequent suffering and misery endured. I touched the protruded membrane freely with nitric acid, and then enforced the rule of the horizontal posture in action of the bowels. Two years have now passed, and there never has been a return of the disease.

There are some minor matters that I may say a word upon, in aid of the preventive treatment. Costiveness must be guarded against, and all purgatives abstained from—such as castor-oil and aloes—that act specially upon the rectum. The purgatives to be employed are such as scammony, rhubarb, sulphate of potash, that have their principal action upon the upper portion of the intestinal tube; and it is a better plan that a pill should be taken every night, so as never to permit loading, than to use a purgative only occasionally as required. To most of the purgatives extract of hyoscyamus is a useful addition. Among articles of food, it is often necessary to abstain altogether from brown bread or oaten bread, which occasionally keeps up a special irritation in the rectum. In the milder cases of the disease the observance of the posture I have described is of itself sufficient to effect a cure, aided by attention to purgatives and diet.

A MEDICAL COLLEGE AT THE ANTIPODES.—The *Gazette* announces that, by an order of March 1st, "the Queen has been graciously pleased to direct that letters patent be passed under the Great Seal, granting and declaring that the degrees of Bachelor of Medicine and Doctor of Medicine, already granted or conferred, or hereafter to be granted or conferred, by the Senate of the University of Sydney, in the colony of New South Wales, shall be recognised as academic distinctions and rewards of merit, and be entitled to rank, precedence, and consideration in the United Kingdom, and in the colonies and possessions of the Crown throughout the world, as fully as if the said degrees had been granted by any university of the United Kingdom."

ANIMAL MAGNETISM.—The Milan Society for the Encouragement of Arts, &c., has just awarded its prize of 600 livres to Dr. Edwin Lee, M.R.C.S. Eng., as the author of the best essay on the following subject, viz.: "What are the really useful applications in physiology, pathology, and therapeutics, that are to be expected from investigations undertaken into the phenomena of animal magnetism?"

REPORTS OF MISCELLANEOUS CASES, WITH REMARKS.

By HENLEY THORP, M.D., F.R.C.S.L.,
Letterkenny.

The pathological relation of rheumatic fever to the local affections occurring in its progress is no longer a *questio vexata*. The articular and fibrous inflammations are consecutive complications; and when the membranous envelopes of the brain or heart are implicated, it is simply because they constitute portions of an anatomical texture identical in various parts of the body, in which it is the characteristic attribute of the disease to manifest itself. Although articular rheumatism is eminently migratory, it is an unusual occurrence for the arthritis to completely subside when internal organs are engaged; but that a true metastasis, or disappearance of the disease from external parts, may be followed by a suddenly fatal inflammation of a vital organ previously unaffected, the following case furnishes decisive evidence.

Acute Rheumatic Arthritis.—Sudden subsidence of Articular Disease, followed by the symptoms of Meningeal Inflammation and Effusion, rapidly fatal.

Mr. Charles M——, a stout, vigorous young man, of sound constitution and strong muscular development, was seized, shortly after exposure to cold and wet, with severe headache, shivering, and pains in the shoulders. After a few days these symptoms subsided, when the wrists became swollen and tender. I was called to see him on the eighth day of his illness. His condition was then as follows:—Skin perspiring; pulse 90; tongue furred, but moist; bowels open; much thirst; no headache; urine neither very high-coloured nor scanty; density, 1025; no deposit. The wrist-joints were swollen, hot, and painful, and the integuments over them of a light-red colour; no cough, nor præcordial distress; respiratory murmur and heart's sounds normal. The patient had not previously suffered from any rheumatic affection, unless headaches, to which he was occasionally liable, were of this character. He was directed fifteen grains of the acetate, and the same quantity of the nitrate of potash, in barley-water, three times daily; ten grains of Dover's powder each night; and lemon-juice and water for ordinary drink. This treatment was continued, with slight modifications, for the space of a week, during which the disease shifted from the wrists to the ankles, from the ankles to the knees, and back again to the wrists. At no time were more than two articulations simultaneously engaged. Meanwhile the sweating and thirst continued, the pulse remained frequent, and the urine throughout presented very much of the characters above described.

I visited the patient on the morning of the 15th

of February, the sixteenth of his illness; he expressed himself as being "much better." The perspirations had greatly diminished during the night, and the pain and redness had disappeared from the joints. His countenance was tranquil; pulse 96; nothing abnormal in the heart's rhythm or sounds. I took leave of him, neither apprehensive as to his condition, nor dissatisfied with the treatment which had been adopted. Scarcely had I left the house an hour, when he began to complain of headache; his face flushed, and he became excited and loquacious. The excitement increased; his mind wandered; and he frequently attempted to leave his bed. These symptoms continued till mid-day, when he slowly lapsed into a drowsy condition, during which he muttered and groaned frequently. Absence from home unfortunately prevented me from seeing him till eleven o'clock, p.m.; he was then comatose, or nearly so; unable to recognise any one, or reply coherently to questions put to him. Pupils neither contracted nor dilated, but inactive; face rather pale and bloated; pulse 110, weak, but regular; heart's action neither attended with friction sound, bruit, or increased impulse. His head was shaved, and leeches applied to his temples; a terebinthinate enema immediately administered; sinapisms, moreover, were applied to his legs and hands, and a scruple of calomel, with a drop of croton oil, placed on his tongue; but in vain. The coma increased during the night; he breathed more laboriously, and at longer intervals; his pupils dilated considerably; and he expired early on the following morning, ten hours from the commencement of the symptoms of cerebral disturbance. No *post-mortem* examination could be obtained.

Cases like the foregoing are fortunately of rare occurrence; and considering the great proclivity of the fibro-serous textures in connexion with the heart to be engaged during the progress of rheumatic fever, it is not easy to assign a satisfactory reason for the comparative immunity of the membranous envelopes of the brain, which possess the same anatomical structure, unless, indeed, the excited state of the heart, incident on the general pyrexial condition, and the direct contact of its lining membrane with blood altered in its crisis, and impregnated with foreign principles, be considered sufficient to afford a satisfactory solution of the problem. But certain it is, that meningitis, when it does occur, is the most fatal of all complications; and an explanation of the fact will be found in the presence of the bony case which covers and protects the central organ of the nervous system. In pericarditis, the products of inflammatory action eccentrically bulge outwards, and dilate the yielding pericardium; and if an exudation is ever produced with such rapidity as to mechanically press upon the heart, and so arrest its action, the circumstance must be exceedingly rare. But as respects the brain the case is different: effused fluids receive counter-pressure externally

from the rigid skull, and must soon come to exercise fatal pressure on the organ. As bearing upon the doctrine of metastasis, a few facts in this case deserve special notice—viz., the several articulations were engaged symmetrically, or in pairs; not more than two joints were affected at one and the same time; the disease invariably receded from the corresponding joints of opposite sides, before it invaded those next in succession. In the wrists the arthritis was last observed; and ere the meninges were attacked, it had quitted these also; so that on the morning of the 15th no articular inflammation existed. Now, although the cerebral complication was fatal, it did not really alter the character of the disease. It was, so to speak, accidental, and in all probability would not have occurred, had not some unknown influence rendered the dura mater more liable than the fibrous structures of the knees, ankles, &c. Therefore, when we view the subject broadly, it is quite as just to speak of a metastasis from one articulation to another, as from the same articulations to the pericardium or membranes of the brain. However, apart from theoretical considerations, the foregoing case establishes the important practical fact, that in a case of acute rheumatic arthritis, *pending the pyrexial condition, and before the critical deposits make their appearance in the urine*, a suddenly-fatal lesion of a vital organ may occur, the disease having previously ceased to manifest itself in the articulations.

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Case of Entero-vesical Fistula—Gaseous Distension of the Bladder, with Retention of Urine, and partial Retroversion of the Uterus.

A poor woman, aged about 45, the mother of three children, suddenly experienced an incapacity of emptying her bladder. The retention had continued for forty-eight hours when I was called to see her. She was not pregnant. A common female catheter entered the bladder without any difficulty. During the escape of the urine my attention was directed to a strange noise, which, as the instrument was introduced without exposure of her person, I could not account for in the first instance. On the following day I was again requested to see her; she was totally unable to empty her bladder, and a severe pain about the region of the anus, which she complained of on my first visit, had returned. I now instituted a more particular examination, and discovered the fundus of the uterus depressed into the hollow of the sacrum, just within reach of the finger. The cervix was directed forwards towards the pubes. I could discover no disease of the anus or rectum to explain the pain felt in these localities. I again introduced an ordinary female catheter, which entered the bladder with facility, when, to my great surprise, a blast of air escaped with a whizzing sound audible at some distance, followed by a co-

pious discharge of frothy urine. The patient experienced immediate relief, and upon re-introducing my finger into the vagina, I found that the uterus had righted itself. For several days there was a recurrence of these symptoms, and the patient required the regular employment of the catheter. From the circumscribed distension and drum-like resonance of the hypogastrium, and the loud whizzing, and even musical sound, which immediately ensued upon the introduction of the instrument, it was evident that the bladder, on these occasions, contained a gaseous fluid, which, by excessively distending the organ, impeded its contraction, and, moreover, caused it to press backwards, so as to alter the position of the uterus, and occasion a temporary retroversion. From what source did the gaseous distension proceed? There were three modes of explaining the presence of an æriiform fluid in the bladder. Did it proceed from putrefaction of the contents of the organ? No; the urine presented no abnormal characters when chemically tested. Did the lining membrane of the viscus (for mucus membranes occasionally display this power) secrete the gas? This opinion was scarcely tenable from the history of the case, and the sudden occurrence of the symptoms. Was there an abnormal communication between some part of the alimentary canal and the bladder? The affirmative to this proposition was accepted, as furnishing the only satisfactory explanation. There was nothing, however, in the antecedents of the patient to enhance the probability of this view; she had never suffered from diarrhoea or symptoms of enteric disease.

With the intention of keeping the bladder permanently empty, and of thus placing the supposed fistulous communication in the most favourable condition to contract and close up, a gum-elastic catheter was for several days kept constantly introduced. The instrument at length produced some irritation and annoyance, and the patient, becoming impatient of its presence, removed it. The bladder, however, in the meanwhile, had regained to some extent the power of emptying itself. Its capacity had evidently diminished, and as air entered it in less quantity, the symptoms of distension and loss of power were gradually succeeded by those of irritable bladder, and the patient became troubled with a constant desire to make water, and an incapacity of retaining it for any length of time. After a lapse of four years she still suffers from uneasiness in the vesical region, and frequent micturition. The bladder, as I have ascertained by a recent examination, is small and contracted. The urine, with the exception of a slight mucous deposit, not indeed constant, presents the characters of health. There is no evidence of calculus, nor, as far as I could learn, was there ever any foreign body or extraneous substance discharged from the bladder. I now regret that I had not the urine microscopically examined.

CASE OF URÆMIA.—CEREBRAL SYMPTOMS.—DEATH.

By J. T. BANKS, M.D.,

King's Professor of Physic, &c., &c.

A man, æt. 40, was brought to the Hardwicke Hospital on 25th March; he was left at the gate, and no account could be obtained of him. He was heavy, stupid, and breathing stertorously, like a person in an apoplectic fit; but he could be roused by speaking loudly to him. From the moment of his admission he gradually became more insensible, and towards evening he was seized with an epileptiform fit. Death occurred within twenty-four hours after he came into hospital.

When I first saw this man, it was a matter of much difficulty to arrive at a diagnosis; all we heard of him was, that he had been sent away from a hospital, where he had sought admission, under the idea that he was in typhus fever. I examined the region of the bladder, but there was no distension; however, I thought that if we could get any urine, it might aid us in discovering the nature of the disease. A catheter was introduced, and about four ounces of pale urine drawn off. On examination it was found to be only 1·009 specific gravity, and it was highly albuminous. Here, then, was the solution of the difficulty; but without the information so gained, we had nothing to direct us to the source of the mischief. There was not a trace of dropsy, and we had no reason to suspect renal disease; but knowing the connection which often exists between cerebral symptoms and Bright's disease, we thought, if we could obtain a specimen of the urine, something might be gained to throw light on this obscure case.

The importance of examination of the urine, in cases of cerebral disease, can scarcely be over-rated, whether we regard the information in a scientific point of view, or as a guide in practice.

The *post-mortem* examination showed that the brain itself was perfectly healthy. There was a considerable quantity of serum beneath the arachnoid membrane, and the ventricles contained about six drachms of serum, in which urea was detected in considerable quantity. The thoracic viscera were healthy, as were also the abdominal, with the exception of the kidneys, which were diminished in size, and otherwise much diseased.

The following observations and summary of cases, which we copy from the *Bulletin Therapeutique* and the *Journal of Practical Medicine and Surgery*, will be found a valuable addition to Professor Banks' very interesting and instructive case:—

Nervous Apoplexy.—Frequency of Renal Affections in this form of Apoplexy.—Practical consequences of this Relation.

A case was lately published by Dr. Widal, in the

Journal of Practical Medicine and Surgery, under the title of "*Apoplexie nerveuse foudroyante*." This posthumous diagnosis was established upon the negative results of the *post-mortem* examination, and chiefly upon the healthy condition of the brain and its membranes. On reading this case, Dr. Picard of Guebwiller relates another similar to it, and which he had already published in a thesis upon "*Urea in the Blood*," read before the Medical Faculty of Strasburgh, in August, 1856. In this case, as in that published by Dr. Widal, the patient was a man of athletic constitution and sanguineous temperament, who, in the course of twenty-four hours, had several attacks of epilepsy, in the last of which he expired.

On examination of the brain, it was found in a perfectly healthy condition, and nervous apoplexy might have been admitted; a more careful investigation betrayed, however, the existence of albumen in the urine, of considerable organic disease of the kidneys, and of uræa in the blood to the amount of nine per cent. Dr. Picard, therefore, concludes that death had been the consequence of the presence of uræa in the circulation, occasioned by a stoppage or a diminution of the renal secretions. Nor is this case to be looked on as a solitary one, or of uncommon or exceptional character, for he then details several analogous instances.

1.—Case of a man, aged 49, who died suddenly after epileptiform convulsions. At the *post-mortem* examination the brain was found to be healthy, the urine albuminous, the kidneys discoloured, and in a state of atrophy.

2.—A woman, aged 37, died suddenly, in a comatose condition. The nervous centres were sound, the urine albuminous, and the kidneys atrophied.

3.—A single woman, aged 24, died in convulsions. The nervous centres were free from morbid change, the urine was albuminous, the kidneys atrophied.

4.—A man, aged 35 years, who had died in convulsions, presented healthy nervous centres, but the kidneys were hypertrophied, and the urine contained albumen, fibrinous cylinders, and epithelial fragments.

5.—A man, aged 34, died in consequence of symptoms resembling apoplexy. No *post-mortem* examination took place. The urine was albuminous, and the blood contained eleven per cent. of uræa.

6.—At the autopsy of a woman, aged 25, who had died suddenly, the brain was healthy, but the kidneys had undergone considerable change; the urine was albuminous, and 53 per cent. of uræa was detected in the blood.

7.—A single woman, aged 28; sudden death; autopsy; nothing peculiar in the brain; disease of the kidneys; bladder empty; 41 per cent. of uræa in the blood.

May we not admit, then (Dr. Picard observes), that such was probably the nature of those numerous cases described as nervous apoplexy? In those just quoted, if the solids and liquids had not been carefully scrutinized, the death of the patients might possibly have been referred to nervous apoplexy—a diagnosis which would, of course, have been borne out by the healthy appearance of the brain and spinal chord.

We cannot, then, too strongly insist on the necessity (in doubtful cases, at least) for a proper examination of the urine. From the results of this examination we will be enabled to decide on the propriety or impropriety of depletion, or as to the use of special stimulants of the nervous system, or whether general tonics and medicines whose action is particularly directed towards the blood itself, would not be more beneficial.

In this manner one of our colleagues being attacked with hemiplegia, was first bled, under the idea that the case was one of cerebral congestion; he was then submitted to the use of *nux-vomica*, upon the supposition of it being a case of nervous apoplexy; but both plans were equally unsuccessful. At last he was cured by the use of iron in large doses, the indication for which was afforded by an examination of the urine, revealing the existence of albuminuria.

NOTES OF CASES FROM HOSPITAL PRACTICE.

By THOMAS H. BABINGTON, M.B.,

Surgeon, Londonderry Infirmary.

Herpes Circinnatus.

In the DUBLIN HOSPITAL GAZETTE for 15th November, 1857, Dr. W. Moore recommends the use of *Rottlera Tinctoria* (Kameela) as a local application of great efficacy in herpes circinnatus. I can with equal confidence advise tincture of iodine. I have for several years past been in the habit of brushing the affected parts with this preparation. Some of the cases required a second application. In no instance have I seen it fail.

I can with confidence recommend its use; and it has this advantage over the kameela, it is more easily procured.

Foreign body in Child's Ear.

A short time since, a little girl, aged 8 years, was brought to the infirmary by her father and sister. The latter alleging that she had seen a "black clock" creep into the child's ear as she was getting out of bed in the morning. The friends poked at the ear in pursuit of the intruder with pins and other similar instruments; the use of a syringe was then had recourse to, but all efforts to dislodge the enemy proved ineffectual.

The ear was full of blood; the child was exceedingly restless, and could not be persuaded to keep her head quiet. She was placed under the influence of chloroform; the ear was washed out with a syringe and tepid water; and with a pair of Wilde's forceps, a black substance impacted in the ear was with facility removed, which proved to be a black clock, about an eighth of an inch long, the caudal extremity being somewhat broken up, as it was in the rear the intruder had been attacked with the pins, &c.

Chronic Lead Poisoning.

By Dr. A. CUTHBERT, House Surgeon, Londonderry Infirmary.

Robert White, æt. 22, a painter, admitted into the Londonderry Infirmary on the 28th December, 1857, with well marked symptoms of chronic lead poisoning. The wrists are drooped; the fingers flexed; and he possesses no power whatever of extension. Does not at present suffer from colic, but the bowels are somewhat constipated. While at work six weeks previously in Newcastle-on-Tyne, he fell to the ground insensible while mounting a ladder, having before this suffered but slightly from any inconvenience or pain. Consciousness soon returned, but he was unable to resume his usual occupation, and therefore returned to his native

city. In addition to the paralysis he presents the following additional symptoms of lead poisoning. His countenance is sallow and suggestive of cachexia; there is numbness of the lower extremities; a faint blue tinging of the gums; occasional vertigo; and constipation. He also complains of cold even when in bed, which, he says, keeps him from sleeping; and of a sense of weight between the shoulders.

Treatment.—He was ordered to be cupped between the shoulders, and six ounces of blood drawn; to have a bath, containing four ounces of sulphuret of potassium to thirty gallons of water, every second day; to have a draught of castor oil and croton oil immediately; and to take five grains of iodide of potassium three times daily.

Under this treatment the amendment was most satisfactory. While receiving the bath for the third time, he was able partially to extend the fingers, and now (eighth day of treatment) he possesses very slight power of extension. Does not suffer either from colic or constipation. There is still slight vertigo. The treatment was continued (the baths as long as they blackened the surface) without interruption till the present time, (6th February, 1858). He has now complete power of extension of the fingers, and the perfect use of his hands; suffers nothing from constipation or colic, and is perfectly well, with the exception of occasional dizziness and a dragging sensation between the shoulders. To continue the iodide of potassium.

February 18th. Discharged this day perfectly well in every respect, having been fifty-two days under treatment.

Proceedings of Societies.

PATHOLOGICAL SOCIETY OF DUBLIN.

We select the following interesting communications from those lately made to the Pathological Society:—

Malignant Ulcer of the Arm.

Mr. TUFNELL exhibited the casts and drawings of a case of unusual character, namely, malignant ulceration of the upper arm, with cancerous infiltration of all the adjacent tissues, as high as the axilla. The patient from whom they were taken was a woman, *æt.* 70, who had always enjoyed good health until about a year before her death. She came under Mr. Tufnell's care in the City of Dublin Hospital, in August, 1856, having been admitted for what was supposed to have been cellululo-cutaneous erysipelas, following upon an injury. She stated that about nine months before, whilst engaged in milking, the stool upon

which she was sitting slipped and she fell, and the cow being startled trod upon her, inflicting a severe contusion on her arm, at the insertion of the deltoid muscle. The part inflamed, and then slowly ulcerated, whilst the tissues around became progressively hardened, and more and more dense and brawny.

Upon admission a large oblong ulcer existed on the outer side of the arm, four inches in length by two in breadth, deeply excavated, with nodulated uneven edges, and nodules projecting in different parts of its surface, which was coated with a thick greenish yellow adhesive pus, of very tenacious character, and foetid smell; oil globules in considerable quantities floated through this pus.

The limb generally presented much of the appearance of erysipelas of the form stated, the cellululo-cutaneous. From the fingers to the elbow the colour was pink, and the tissues distended with serum; from the elbow to the ulcer the colour was deeper, assuming more of a brick-dust tinge, whilst from this spot up to the shoulder it was of a full modena hue. Inferiorly the limb pitted freely, but superiorly it was dense to a degree, being elastically hard, like India rubber. The bulk of the limb was extreme, and the arm at the site of wound measured fully as much in circumference as an ordinary adult thigh. Her general health was not affected to the degree that might have been anticipated, and she complained only of the incumbrance which the arm gave her by its bulk, and of a continued burning pain. Towards night the heat of the part would become excessive, and she required full opiates to produce sleep. The treatment adopted consisted in supporting the powers of life, whilst locally every thing was directed towards the reduction of the induration and swelling, and to the production of a healthy action in the wound. The serum from the forearm was evacuated by punctures, and the tension and heat of the upper arm by moderate incisions, whilst charcoal and carrot pastilles, with chloride of zinc (Barnett's fluid) were applied to the sore. The limb was kept elevated, and supported by tailed bandages and pressure. The condition of the ulcer at first improved, and towards the outer edge showed a disposition at one spot to cicatrize, but this was only temporary; the destructive process gradually extended, destroying the entire of the tissues, leaving little beyond the humerus itself remaining, which lay exposed for several inches, rough, scabrous, and bare, flanked by two strips of integument, one on the inner, the other on the outer side. A fatal hæmorrhage from erosion of the vessels seemed inevitable, but as the loss of parts extended, they seemed to be occluded. The powers of life became gradually exhausted, and she died quietly off towards the middle of November, about three months after admission, and one year from the receipt of the injury.

Upon examination of the body after death, the

soft tissues of the upper arm, and around the shoulder (at least such as were remaining), were found converted into a substance like fibro cartilage, of pale yellow colour, and as hard as India rubber, and into this mass the brachial vessels and nerves were all, as it were, fused, forming an homogeneous mass.

The internal organs had not become engaged. The whole of the viscera and contents of the cavities were carefully examined for secondary deposit, but none such was anywhere to be found.

Dr. M'CLINTOCK exhibited a specimen of

Cellular Exostosis of the Os Sacrum,

and said:—This, I may say rare, specimen of disease of the os sacrum, which I present to the society, was removed from the body of a woman, aged 22 years, who died of rupture of the uterus occurring during labour. The history given of herself in connection with the growth of this tumor was briefly as follows:—About three years previous to my seeing her she had fallen on her back from a height of three or four feet, thereby receiving a severe blow upon the sacrum; this injury was followed by a great deal of pain and numbness in the legs, for which she was admitted into hospital; she remained there for three or four weeks under treatment, and left it somewhat better. She bore marks of having been cupped two or three times over the sacrum.

This tumor involves the entire of the sacrum, which bone seems expanded out into a multilocular cyst; when recently examined the cells were filled with a reddish coloured fluid. It considerably encroached upon the cavity of the pelvis, reducing its conjugate diameter to less than two inches, and it projected very much posteriorly. When this tumor is examined more closely, we find that there are some traces of the separate bones of which the sacrum is composed, and the line of junction is indicated anteriorly by transverse fissures or sulci. Circumstances required that the pelvis should be removed in great haste, so that no minute inquiry could be made respecting the condition of the contained soft parts; we can readily understand, however, that they must have suffered a very great amount of pressure. The orifices through which the nerves emerged are distinguishable, the posterior branches made their exit through a longitudinal fissure at each side of the tumor. It is interesting to observe that the coccyx is not involved in the disease, although each os innominatum is. The internal structure of the tumor consists, as already observed, of a number of large cells, it might therefore be called a cellular exostosis or spina ventosa. It engages the entire substance of the sacrum, and a part of each os innominatum, but has respected the only true arthrodial joint in the neighbourhood, viz., the sacro-coccygeal joint.

I think that the most interesting circumstance connected with this case is the fact of there having been no paralysis of the lower extremities. The patient was able to stand and walk, and the sensation of the limb was in no way impaired: these circumstances show us the wonderful power of accommodation, that the structures of the body are capable of evincing in the slow progress of disease, for in the specimen before us the morbid growth has so much encroached upon the greater sacro-sciatic notch, as to leave only a slit-like fissure in front, that is scarcely the one-sixth of an inch in diameter at any point. When we bear in mind that the remaining cavity of the pelvis was occupied by the urethra, rectum, uterus, vagina, &c., it can be readily conceived that there was but little available space left for the transmission of a fetus at the full term of utero-gestation. In an obstetric point of view, then, the specimen before us is one of peculiar interest, but this is not the place to speak of it in relation to parturition.

Dr. LYONS exhibited a specimen, which he said was interesting, as bearing on the question of

The Modification of Organic Valvular Sounds of the Heart,

after being once well, and characteristically developed. The case was that of a patient presenting the combination of valvular disease of the heart, waxy degeneration of the kidneys, congestion of the lungs and liver, and general anasarca, with ascites. Towards the close of the case there was an extensive bronchitic affection. Dr. L. saw the patient for the first time on 1st of February; before this date there had been manifest systolic murmur over the aortic valves, propagated in the line of the aorta. He made an examination with considerable care on that day, and found that the murmur was then limited to the interval between the base of the heart and the apex. There was not, at that time, any second murmur whatever, nor was any portion of the murmur to be heard in the interval between the aortic valves and the top of the sternum. The radial pulsation was exceedingly small, and not visible in either wrist; there was, in fact, that small, weak, compressible pulse, which is so often found associated with mitral valve disease. The case was examined daily with care, and the murmur was observed to have the same limitation. About a fortnight after the period referred to, namely, on the 14th of February, it was ascertained, on examining the case, which presented no other marked change of any kind, that there was now a well marked murmur with the first sound of the heart, propagated with great intensity in the line of the aorta; the murmur was, in truth, now heard much more intensely in the line of the aorta than over the valves or at the apex; it was still audible in the

interval between the aortic valves and the apex of the heart, but only slightly so, and by no means with the same distinct character as between the aortic valves and the top of the sternum, and so it remained till the final issue of the case. Dr. Lyons said, that he also distinctly remembered that there was occasionally a double sawing, or to-and-fro murmur over the aortic valves, *but this phenomenon was not constant.* The systolic sound was audible up the line of the aorta with very great intensity, and without further change of character till death. The case proved fatal in the usual way, the patient died by accumulation of effusion and extensive general bronchitis. On examining the condition of parts, *post mortem*, there was found extensive wartlike deposit, with constriction of the aortic orifice, upon the three semilunar valves; on examining the mitral orifice there was found only a very slight amount of thickening and contraction of the posterior valve, the great anterior flap separating the aortic from the mitral orifice, was almost perfectly healthy. There was no deposit on it, and Dr. L. could not come to the conclusion that there had been any remarkable change in this orifice during life. The case, he thought, was interesting in this point of view, that it showed that in some instances at least we may have well marked and characteristic aortic murmur for a certain period of a case; during that period of course the diagnosis is readily made. But again, the murmur, though established in the heart as a characteristic murmur, propagated in that direction in which we know that aortic obstructive murmurs are best developed, may, as we now see, for a time be suppressed.

We know very well that in some instances murmurs dependent on valvular disease disappear, or undergo modification as the case approached a fatal termination. This was not so in the present instance, in fact the contrary was the case; for a fortnight or more before death the murmur was as clearly developed as at any previous period.

Mr. S. A. CUSACK exhibited a fore-arm, which had been removed by Mr. Wilmot on the preceding Thursday, in Steevens' Hospital, on account of a malignant growth which occupied a considerable portion of the palm of the hand. The patient from whom it had been taken was a female, 35 years of age, and otherwise healthy.

It appears that the disease has been growing about eight months, having first shown itself as a small hard tumor in the palm of the hand, between the metacarpo phalangeal articulations of the ring and little fingers. It does not seem to have been caused by inflammation or injury, and did not cause her any inconvenience at first; but at the end of four months it began to grow, and was affected with a dull aching pain, and the two last fingers became contracted and useless.

About this time it was explored by the surgeon under whose care she was in the country, but there has been no opportunity of ascertaining with what result.

The tumor continuing to grow, she sought admission into Steevens' Hospital, under Mr. Wilmot, on the 13th of February last. By this time it had become about two inches in diameter, being globular, and quite circumscribed; it appeared to be situated between the fourth and fifth metacarpal bones, which were divaricated by it slightly, so that it caused a slight projection on the dorsal as well as the palmar surface of the hand.

It fluctuated obscurely, and was firmly adherent to the subjacent parts, as also to the skin over it, which was of a livid purple colour. Some fulness extended up the fore-arm, in the direction of the pisiform bone and flexor carpi ulnaris, but she felt so much pain when pressure was made in that situation, that she would not allow of the fore-arm being satisfactorily examined.

About a week after her coming into Hospital the tumor was explored, but the few drops of fluid obtained were so strongly coloured with blood, that their precise character could not be made out with the naked eye, but under the microscope they exhibited well marked cancer cells. About fourteen days ago, the nature of the tumor being still uncertain, Mr. Wilmot decided upon laying it open with a bistoury. The cut surface bled so freely that its original colour could not be seen; it presented to the finger a soft doughy sensation, and appeared to be very vascular. In a few days it began to be covered with large soft fungoid granulations, and has since grown so rapidly, that it is now double or three times the size it was when first incised.

The principal points of interest in this case were, the unusual situation of the disease, and the difficulty which attended the diagnosis.

The situation and appearance were, at first sight, those of enchondroma; but the obscure fluctuating feel, and the purple colour, which are not to be seen in that disease, were sufficiently distinctive characters.

To distinguish it from a bursal or ganglionic collection was not so easy a matter; indeed, in the absence of any characteristic features, except the microscopic appearance of its fluid contents, there was no alternative but to lay it open, either for the purpose of effecting a cure if it should turn out to be ganglionic, or to develop its true character if malignant.

The fact of its rapid growth during the fortnight after its division, and the fungoid character of its surface, were sufficient to distinguish it from the granulatory surface of a divided bursa, and left no other alternative than removal of the limb above the joint.

The flap operation having been performed between the middle and lower third of the fore-arm, it was found that the portion of ulnar nerve in the

flap was diseased; it was accordingly drawn out of the flap and cut off with a scissors, higher up than the disease had extended.

The tumor being divided by a section down the middle, presents, to a very marked degree, the appearance of cerebriiform cancer; it does not appear to engage the metacarpal bones, which are merely pushed aside by it. Mr. Wilmot is inclined to think that it commenced in one of the nerves of the palm of the hand, from the fact that the ulnar nerve passes insensibly into it, being first slightly thickened where it commences to be diseased, and gradually attaining to one inch in diameter where it is lost in the tumor.

The fulness in the direction of the pisiform bone and flexor carpi ulnaris, was caused by the diseased nerve, which was completely changed into cancerous matter in that situation. The pulpy substance, which could be expressed from the cut extremity of the nerve, or scraped from the surface of the tumor, presented well-marked cancer cells of a nucleated character, and was interesting as verifying the opinion which had been formed by examination of the fluid drawn by the exploring needle.

With reference to the propriety of the operation there could be no second opinion: the patient was perfectly free from glandular disease. The whole of the affected portion of nerve was removed; and it is to be hoped that the disease will not re-appear in the stump or elsewhere.

ON THE ORIGIN AND FORMATION OF TUBERCLES IN THE LUNGS.

By J. L. C. SCHROEDER VAN DER KOLK.

Translated from the Dutch by

WILLIAM DANIEL MOORE, A.B., M.B., T.C.D.,

Honorary Member of the Swedish Society of Physicians, and of the
Norwegian Medical Society.

(Continued from page 88.)

Further to confirm the process of tubercular formation here propounded, it appeared to me important to compare it with that of hepatization of the lungs in peripneumonia. In this disease, too, plastic matter is effused in the cavity of the pulmonary vesicles. It was therefore of importance here also to examine accurately the contents of these pulmonary vesicles; and the more so because we have to do with the products of simple inflammation, in which no peculiar blood-crisis, excluding the capacity for organization, is supposed to exist. Now, if a proper albuminous or fibrous-crisis has so much share in the growth of tubercles, at least some difference should here appear.

If, however, we examine a hepatized lung, we find in it also, so exactly the same development of epithelial and secretion cells as we have described in pulmonary tubercles, that I think it impossible to distinguish under the microscope tubercular cells which are not too far advanced from those occurring after peripneumonia and hepatization of the lung.*

For the sake of comparison, I have made as accurate as possible a drawing, in a case of red hepatization. (See Fig. V.) In this figure only a portion of a pulmonary vesicle, *a a a*, is represented, furnished with the same cells which occur in Fig. II. in pulmonary tubercles. This difference alone takes place, that we here meet many blood-discs, *b b b b*, which in tubercles are altogether wanting, but which, in a somewhat more advanced state of hepatization, I have been equally unable to discover, and which, therefore, appear to become dissolved. On the bottom of the pulmonary vesicle, as well as in Fig. II., flat epithelial cells and elastic fibres are visible. On these, again, the swollen and cast-off cells are situated, distinguished from the former by a somewhat greater size and opacity; while at *c* a very large parent cell occurs, with several enclosed nuclei. In other examples of less recent hepatization I met the number of larger cells in greater quantity, even somewhat greater than in tubercles; and here also I found now and then, between these cells, the same growing connective tissue as in Fig. II. is represented as taken from tubercles. The hepatization in the lung from which this figure was taken was very recent; some pulmonary vesicles I found nearly entirely filled with blood-discs, and a few still remaining larger cells; in other places, as is represented in the figure, both were mixed.

We thus see, in this case, where simple inflammation is present, and the blood-crisis, which is assumed to explain tubercular disease, does not exist, the same cell-formation arise in the pulmonary vesicles, the same alteration of the epithelial cells, and the same absence of transition to higher organization. It thus appears, convincingly in my opinion, that the formation of tubercular matter, this development of the epithelial cells of the pulmonary vesicles, and the absence of higher formation, are by no means to be ascribed to an hypothetic change of the albumen and fibrin of the blood, but that they are the simple consequence of the exudation of blood-fluid or serum in the pulmonary vesicles, whereby the same process is accomplished which takes place in a healthy state in all secreting organs. It is, that is to say, the natural property of secreting cells everywhere, when they are, in the living body, washed with more or less albuminous fluid, to swell up, multiply, and alter the taken-up and imbibed matters, and then to perish through fatty metamorphosis; but they do not possess a disposition to further organization.

In order still further to convince myself on this point, I conceived that it was not unimportant to examine the lung of a recently-born child which had not breathed. Before birth no air penetrates into the lungs; the air-passages, and consequently, also, the pulmonary vesicles, are still filled with fluid, especially liquor amnii, which, however, being in contact with so many minute blood-vessels of the air-passages, may, perhaps, according to the laws of endosmosis, draw from the blood some more albumen, and thus be richer in this principle than is the case with the surrounding liquor amnii, which is still not altogether deficient in the same. Examining a very fine section of such a child's lung under the microscope, I encountered here also the same process, of which I have, in Fig. VI., given an accurate drawing. We here see, at the same magnifying power, a pulmonary vesicle covered within with flat epithelial cells, distinctly showing their nuclei. Not only, however, at the edges of the pulmonary vesicle *a a a*, but also in the middle, and especially at *b*, we see larger cells, filled with fluid, situated on the other cells, from which the first have separated, and which quite agree with the same cells we met with, in the morbid condition, in peripneumonia and tuberculosis. Many pulmonary vesicles appear to be quite filled with these cells. If these are dis-

49 et seq., directs attention to the separation of the epithelial cells in the pulmonary vesicles, and to their swelling to granular cells in hepatization of the lung, and in gelatinous infiltration of tuberculous lungs.

* Reinhardt, in his essay on the Origin of Granular Cells, *Archiv für Path. Anat.* 1847, 1 Th. 1 Hft. pp.

tended by commencing respiration, the air must press in; and these cells, probably more or less dissolved, are discharged as mucus. It, however, appears to me very probable, that if the pulmonary vesicles are overfilled and obstructed by these separated cells, they become a cause why the air cannot penetrate into the vesicles; so that respiration remains imperfect, and the child sinks under so-called atelectasis pulmonum.*

We thus see the same process which takes place in the other secreting organs, established in the lungs as well in the healthy condition before birth as in subsequent diseases.

The disease, in this case, does not consist in the formation of the constituents of tubercles or of hepatization of the lung, which is a very natural process, but in this—that in the pulmonary vesicles blood-fluid or serum is excreted, through morbid action of the vessels, where air alone ought to be present. If this morbid exudation once commences, a very natural increase, swelling, and finally solution, of the secreting cells ensue; just as, under the same circumstances, takes place in all other secreting organs.

A special exudation of peculiarly modified or morbid fibrin or albumen is, therefore, not in the least necessary to this tumefaction of the epithelial cells of the lungs, as the same takes place in the lung of the fœtus, under the influence of the liquor amnii, just as occurs in all other secreting organs, in consequence of exudation of healthy serum; only after birth a stronger action and more decided exudation is required in the lungs; and if this be so, the entire notion of a peculiar crisis falls to pieces of itself; nothing but a greater or less degree of inflammation and irritation of the lungs is necessary to produce this exudation. The exuded fluid is altered in the epithelial cells which take it up, and finally becomes more solid.

Therefore, as we have above observed, it is incorrect to ascribe this change to a more or less coagulable fibrin, as the tubercles are not the product of coagulated fibrin, but of the change which the effused fluid undergoes within the cells.

Entirely different from this change of the secreting cells is the process which takes place after the exudation of plastic matter between the pulmonary lobules and the connective tissue, wherewith these lobules are mutually connected. Here the so-called interstitial tubercles are formed, also termed by Rokitsansky, as we have above mentioned, grey tubercles,† which are said, in consequence of a simple fibrin crisis, subsequently to pass into a state of horny formation.‡

If we take of a lung studded with distinct tubercles so thin a layer, that the interlobular or interstitial tissue between the lobules is thin and transparent enough to be examined under a strong magnifying power, we see around, or in the neighbourhood of the tubercles, the connective tissue occurring between the lobules more or less studded with cells of various degrees of development.—(See Fig. VII.) Some cells are of a roundish-oval shape, with nuclei; sometimes the nucleus fills nearly the whole cell *c*, so that the cell membrane is with difficulty distinguished; in others this membrane is more prolonged, and becomes a fibre, while the nucleus still remains visible, *d*, *e*. In the opened neighbouring pulmonary vesicle, where the bloodvessels were still filled with injection *b b*, we see, on the contrary, only small secretion or epithelial cells, *f*, but none lengthened, as in the neighbouring connective tissue.

If we take a very delicate section, at a later period of

greater tubercular development (see Fig. VIII.), the whole interstitial tissue is nearly filled with elongated cells, *a a*; between these cells are others filled with black pigment. In one case a tolerably long vessel, completely filled with round cells, of which a portion is represented in Fig. VIII. *c c*, very much attracted my attention. On the nature of the vessel it was difficult to decide; it appeared to me, however, to be a lymphatic, such as we have seen to run between the pulmonary lobules. At *d* and *e* this vessel plainly gave off two branches. The complete filling of this vessel with cells appeared to me more in favour of its being of the nature of a lymphatic. Thus, in inflammation, these vessels are often filled with cells or caseous matter, of which I possess several specimens, in intestinal ulcers and phthisis. In the tissue itself several rows of roundish cells, *ff*, occurred, respecting which I felt doubtful whether I should consider all to be free newly-formed cells between the rest of the tissue, or whether I should look upon them as sections of delicate ramifications of lymphatics in this thin layer. I have, however, met these rows of cells in so great number in the interstitial tubercle, that I can scarcely assume the existence of such an abundance of lymphatics. This interstitial tissue is, however, very much condensed in the tubercle, and may consequently, perhaps, as Rokitsansky thinks,* more or less compress the neighbouring pulmonary vesicles. Around the walls of the larger branches of the bloodvessels and bronchi, also, the tissue sometimes becomes remarkably condensed, and it then consists nearly entirely of long cells and fibres. There are here, consequently, a new formation and an increased growth, which are entirely wanting in the pulmonary vesicle. This hypertrophy and formation of elongated cells and fibres constantly occur in the interstitial tissue between the tubercles of the pulmonary vesicles. If we now assume, with Rokitsansky, a fibrinous crisis for these tubercles which appear grey from the formation of pigment, and a croupy crisis for the cells in the pulmonary vesicles, we shall be obliged to fall back on the absurd position, that out of the same bloodvessels the croupy membrane, incapable of organization, should constantly deposit itself with a special preference, as I have above already remarked, in the cavity of the pulmonary vesicle, while the fibrinous, still adapted for development, should select exclusively the interstitial tissue.

It is, I think, sufficiently clear, that this difference in development is produced by the varying nature of the tissue and cells with which the same matter exuded from the bloodvessels comes in contact.

If, however, we examine the interstitial tissue around the lobules, in peripneumonia and hepatization of the lungs, we again meet the same process as in so-called grey tubercles (see Fig. IX.); but the round cells appeared to me to be present in greater quantity, *a a*, perhaps on account of the shorter duration of the disease; elongated cells, however, are not wanting. If we now compare herewith little tubercles, such as often occur in inflammation of the peritoneum on the surface of the intestines, we find in the same manner cells, of which we can plainly perceive the transition to long cells (Fig. X. *a b*) and cell-fibres, sometimes with numerous points, *c*; but in these tubercles the formation of tubercle-cells, such as we have described in the pulmonary vesicles, is entirely absent, since, in the former situation, the secreting cells do not exist. In the cavity of the intestines, where, in the numerous crypts, secreting cells again are present—and among the latter perhaps Peyer's glands should also be included—the greater determination of blood to the intestines, in consequence of the impeded circulation through the liver, gives occasion to increased formation and solution of the secreting cells, which, by superadded irritation and inflammation, may then lead to ulceration and to the formation of intestinal ulcers. This, however, remains to be more closely investigated.

* Loc. cit. T. III. p. 122.

(To be concluded in the next number.)

* Virchow describes the lung of a recently-born child, which exhibited very distended and light-coloured lungs, so that they presented the appearance as if respiration had taken place, but every part of which sank in water, while the microscope proved that the pulmonary vesicles were filled with an extraordinary quantity of fatty epithelium; they could, however, be inflated.—*Archiv für Path. Anat. u. s. w.* Bd. I. Hft. 1, p. 146.

† *Path. Anat.* T. III., p. 122.

‡ Loc. cit. Tome I, p. 421.

Selections from British & Foreign Journals.

At a recent meeting of the Western Medical and Surgical Society, Dr. FINCHAM read a paper on cases of

ACUTE INFLAMMATORY DISEASE, WITH SPECIAL REFERENCE TO TREATMENT.

The cases, which were mainly drawn from the author's note-book at the Westminster Hospital, consisted of acute inflammation of the lungs, pleura, and heart—chiefly of the first two, in the form of pleuro-pneumonia. The object of the paper was to show that, in an immense majority of such cases, the antiphlogistic treatment is not necessary, and that patients will recover under very simple treatment—as by diaphoretics and counter-irritants; sometimes under stimulation pushed to the fullest extent; sometimes under what is, practically, no treatment at all. After alluding to the success which had now, in the experience of so many, followed the omission of the antiphlogistic plan as a rule in inflammatory disease, the author called attention to the principle which he believed to underlie the management of all such cases, especially of pneumonia. This principle was, to regard local inflammations as the result of a previous unnatural condition of the blood, and so to place them in the category of fevers. "For what, after all," he said, "is the characteristic of a large majority of what are called fevers, whether eruptive or otherwise? Is it not constitutional disturbance, followed by local inflammation? What is scarlatina, but such disturbance, followed by inflamed throat? What erysipelas, but the same, followed by inflammation of the head and face? What dysentery, what typhoid fever, but the same, issuing in inflammation of the mucous membrane? Now, in all these there are the full signs of inflammation, effusion, &c., and yet no one thinks of bleeding, mercurialization, or the use of antimony. What is usually and wisely done in such cases is, to watch them well, and to moderate, if possible, local action, trusting in the main to the powers of nature, if no urgent symptoms are present. Such is the practice in favourable cases; but should the powers of nature be failing, then the fullest use of stimulants—no matter what the period of the disease, no matter what amount of local inflammation be present—is necessary to sustain the flagging system. Now, if under this principle of treatment, inflammations will subside in fevers, why should we not expect the same to take place in analogous diseases? The cardiac inflammation of rheumatism and of Bright's disease is doubtless an effect of an unnatural condition of the blood; and the difference between these inflammations and those in connexion with fevers is, that in the latter the morbid agent is introduced from without, in the former, generated from within. Why, then, should we expect to cut short, by large bloodlettings, an inflammation so arising as rheumatic pericarditis, when we do not expect to do so in erysipelas? The *origo mali* in both cases remains the same, notwithstanding the abstraction of blood." The author then proceeded to extend this view to pneumonia, characterised as it is by the most palpable constitutional disturbance—*e. g.*, the marked initiatory rigor, followed by the symptoms of local inflammation. He considered that the most reasonable theory of the disease was, to regard the inflammation of the lung, not as the direct effect of cold on the lungs, but as due to retained and altered secretions, especially of the skin, thrown back upon the blood through atmospheric impressions; and that it was as reasonable to expect to cut short the herpetic eruption, so common in pneumonia, as it was the pneumonia itself. On the ground, then, of an identity, or at least of analogy, in the pathology of acute inflammations and fevers proper, it was urged that a treatment similar in principle should be adopted in both classes of cases.—*Lancet*.

CROUP.—STATISTICS OF TRACHEOTOMY; INDICATIONS AND COUNTER-INDICATIONS OF THE OPERATION.

The *Journal of Practical Medicine and Surgery* records each year the statistics of the operations of tracheotomy performed at the Hospital for Infancy, in cases of confirmed croup. In a disease so common in its appearance, and generally so fatal in its issue, it is all-important to establish with precision the value of a method of treatment, the advantages of which still remain a matter of doubt. We take this opportunity of reverting to the operation itself, and of pointing out the most favourable period for its performance, and also the circumstances which ought to preclude it; we shall describe the modifications which experience has introduced as indispensable or advantageous in the *modus operandi*, and what details of the after-treatment require peculiar attention. The following is the table of the operations performed in the course of the last eight years, with the corresponding number of cures obtained up to December 31st, 1857:—

1850	20 operations,	6 cures.
1851	31 —	12 —
1852	59 —	11 —
1853	61 —	7 —
1854	45 —	11 —
1855	48 —	10 —
1856	55 —	14 —
1857	71 —	15 —

Altogether 390 operations, 86 cures.

The above table shows that the proportions of cures remains pretty nearly the same, *viz.*, about one in four or five, doubtless an encouraging result, when it is recollected that by far the greater number of children who have undergone tracheotomy were in the last stage of croup, and on the brink of unavoidable dissolution.

On the other hand, on January 7th, we were present when a little girl aged two years and a-half, expired during the operation, notwithstanding the well-known skill of the surgeon. If such disasters occur under the able hands of such men as Messrs. Guersant and Trousseau, less experienced surgeons should nevertheless not be deterred from seeking in tracheotomy the positive advantages which it confers in many instances. The precept to be extracted from these reverses is derived from the occasionally great difficulty which surrounds the operation; hence the necessity of warning families of the immediate peril to which the child may be exposed, and of a careful inquiry into the circumstances which may be productive of danger, in order, if possible, to remove them or attenuate their sinister consequences. With regard to the indications and counter-indications of tracheotomy, the age of the patient is not an unimportant consideration. A child, aged eighteen months, died in convulsions during the operation, which was performed by Dr. Guersant. The little girl, whom we previously adverted to, was two years and a-half old. In another similarly fatal case, which we witnessed at Montmartre, the child, a little girl, was also under three years of age.

At an early period of life tracheotomy is frequently surrounded with very considerable difficulties. In most operations performed upon infants, dissection requires more care, and presents greater danger, than in the adult, on account of the closer connection of organs with each other. It is, in particular, easy to wound veins, the hæmorrhage from which conceals the textures to be divided. The trachea is deeply imbedded in cellular tissue and fat; it is small, moveable, and even when it has been incised according to all the rules of

art, the introduction of the metallic tube, with its caoutchouc conductor, may be next to impossible. This unfavourable circumstance has, however, only been met with twice by Dr. Guersant, whose personal experience reposes upon upwards of 200 operations. Acknowledging, therefore, that when tracheotomy is performed upon children under two years of age, it has many chances of proving of no avail, still that surgeon does not consider extreme childhood an insuperable objection to the operation in question.

Pneumonia co-existing as a complication of pseudo-membranous croup, has hitherto been generally deemed to preclude surgeons from entertaining any idea of tracheotomy. Dr. Guersant is at present of a contrary opinion, and he has ascertained that the resolution of the pneumonia is facilitated by the greater freedom with which the respiratory functions are accomplished after the operation. In his opinion, only one express counter-indication exists to the incision of the trachea during croup—namely, diphtheritic infection or general diphtheritis. When, in a child, not only the laryngeal ligaments, but also the nose, ears, or some part of the skin are the seat of pseudo-membranous secretions, or if epistaxis be present, together with the signs of extreme debility, it is in vain to perform tracheotomy: death must be fatally expected, as in the lamentable cases of Drs. Valleix and Blache, Jun.

An excessive degree of asphyxia does not, in Dr. Guersant's opinion, constitute an insuperable obstacle to the success of the operation, if the difficulty of breathing is of a permanent character, and has lasted, in a continuous manner, one hour at least.

It is even in the slow and continuous form of asphyxia that the chief indication for tracheotomy resides. In this case, the only useful interference must have for its object, to reproduce respiration, and to restore life by again filling the lungs with air. Further if the diagnosis has been inaccurate, and that, instead of laryngeal diphtheritis, merely a swelling or oedema of the glottis be present, the operation causes the surgeon to gain time, during which the serous infiltration may decrease, and the patient be saved.

Intermitting asphyxia, however, does not so imperatively claim surgical interference. Dr. Guersant has met with children breathing only with violent efforts, and who appeared exposed to impending death. False membranes had been rejected, and no doubt of the nature of the complaint could exist. The necessity of opening the trachea was pointed out to the parents, who objected to the operation. In such cases, emetics, calomel, alum, chlorate of potass were resorted to, and two of those children recovered. This intermitting sort of asphyxia must, therefore, be discriminated from the continuous form; but with the exception of these cases of uncommon occurrence, and general diphtheritis, which is much more frequently observed, the performance of tracheotomy is absolutely indicated whenever, in a patient whose voice is extinct, continuous and increasing difficulty of respiration exists, and has lasted two, three, or four hours.—*H. Chaillon, in the Journal above quoted.*

FACIAL PARALYSIS AS A SIGN OF CEREBRAL HÆMORRHAGE.

M. Trousseau observes that in facial paralysis properly so called, that in which the seventh pair is alone concerned, the loss of motor power is ordinarily complete and absolute, while when it depends upon cerebral hæmorrhage it is never complete. There may be some difficulty in the movements of the mouth, but nothing comparable to that seen in paralysis of the seventh pair; and we never find the paralysis of the orbicularis palpebrarum carried to the same extent. The patient is always enabled to cover a portion of the eyeball, which is not the case in facial paralysis. M. Trousseau, in fact, has never once witnessed paralysis of the seventh pair which was not complete at least at its commence-

ment, nor, on the other hand has he seen a single case of facial paralysis, dependent on cerebral lesion, and accompanied by general hemiplegia, in which the paralysis of the orbicularis was carried thus far. It is therefore a diagnostic sign of importance—*Gaz. des Hôp. 1857, No. 84., and Medical Times and Gazette.*

TREATMENT OF APOPLEXY.

Regarding the cerebral hæmorrhage when once produced as a "fait accompli," M. Trousseau adopts no treatment, resolution of the effused blood taking place as well or better when nothing is done. In place of bleeding such a patient, keeping him in bed and starving him, he makes him sit up, allows him to eat, and abstains from medication. Since he has adopted this plan of procedure he feels convinced that his patients have recovered better and more rapidly than when he was in the habit of keeping them in bed, and resorting to medicinal treatment.—*Ibid.* [It will be observed, that this confirms the views of Mr. Skey, which he so strongly inculcates, and which we copied from *The Medical Circular* into our last number, p. 92.]

PARALYSIS OF THE FACIAL NERVE SEVERAL TIMES ARTIFICIALLY PRODUCED IN A CASE OF INJURY TO THE TYMPANUM.

A very favourable report was made to the Academy of Medicine of Paris by Messrs. Larry, Guérard, and Roche, upon a paper with the above title, by M. Deleau. The case refers to a young lady whose tympanum was perforated, and who for several years had suffered from suppuration from the ear, and deafness on the side affected. Warts were growing on the meatus externus, and a transitory paralysis of the right side of the face had occurred. In the course of the treatment, M. Deleau brought to view the chorda tympani; it was red and swollen, and he was struck with the idea of touching it with a solution of nitrate of silver. Paralysis of the right side of the face occurred, as it had happened once before when a portion of injection penetrated the tympanum. Both attacks were controlled by cupping behind the ear. The experiment of touching the chorda was repeated soon afterwards, and pain and paralysis again occurred as before. The author strives in his paper to establish the following propositions:—

1. Paralysis in the muscles of either cheek arises almost always from a lesion of the tympanum, and especially from the pressure upon or strangulation of the facial nerve whilst passing through the aqueductus Fallopii.

2. The exaggerated auditory sensations which sometimes accompany this paralysis, is a symptom of internal otitis.

3. In most cases of paralysis of the face, we should treat energetically the affection of the ear which has been the cause of it, and not pay attention to the paralysis itself, which is but a symptom.

4. Finally, the so-called essential paralysis of the muscles of the face, as well as the same paralysis depending on cerebral derangement, are much rarer than has generally been supposed.—*Lancet.*

AN EASILY PROCURED MOXA.

Dr. Chevillon states, in *L'Union Médicale* of the 8th of December, that he is in the habit of producing counter-irritation in various affections, by the following readily-prepared moxa:—Take a common bandage, lightly rolled, and enough of it to get a cylinder about one inch in diameter. Fix the end in any way you please, and hold either extremity of the cylinder to a lighted candle. By blowing a little on the former, you have in a few moments a burning substance, which is lightly applied to the skin. In a few minutes many scores of spots may be thus touched, a little blowing

being necessary after each application. Either simple redness or an eschar may be formed, according as the moxa is more or less firmly applied. The smell of burning linen is rendered bearable by opening the window, and the little blackness left on the skin can be cleaned away with a towel.—*Lancet*.

CHLORINE IN DISSECTION WOUNDS.

M. Nonat states that since 1830 he has repeatedly treated even serious cases of dissection wounds with the best effect by means of solution of chlorine. If the wound is recent, it should be at once freely washed with water, and if it is large and bleeding such washing will usually suffice; but when it is narrow the washing is not enough, and the chlorinated water must be also employed. When the wound even dates several days, is painful and inflamed, and is accompanied by inflamed absorbents and general symptoms, the chlorine will give relief, providing symptoms of purulent infection have not set in. Some inspirations of chlorine may be usefully conjoined.—*Gaz. des Hôp.* 1857, No. 97, and *Medical Times and Gazette*.

Reviews.

The Science and Art of Surgery, being a Treatise on Surgical Injuries, Diseases, and Operations. By JOHN ERICHSEN, Professor of Surgery in University College. Second edition, enlarged and carefully revised. Illustrated by 400 Engravings on Wood. London: Walton & Maberly, 1857. 8vo., pp. 1040.

That Erichsen's Surgery has been well received by the profession is universally admitted. If any proof of this were required, it is evident from the fact of another edition having been so soon demanded. This new edition is not a reprint merely, but contains much additional matter, and it is most creditable to the perseverance and industry of the author, that in the midst of the harassing and onerous duties that devolve upon a hospital surgeon, a teacher of surgery, and a private practitioner in the metropolis, and which are little favourable to literary pursuits, he should have been able to produce a work which must be regarded as one of the most complete treatises on surgery extant—a work equally valuable to the student and the practitioner.

The arrangement followed in the work (the same as in the first edition) is extremely simple. First principles, surgical injuries, and surgical diseases are the three great sections into which the volume is divided. The first division contains general observations on operative surgery, with a condensed view of the nature and treatment of inflammation.

In considering both injuries and diseases (second and third divisions) the natural arrangement is followed of considering first those common to all parts of the body, as wounds, abscesses, ulcers, &c.; second, the diseases and injuries of special tissues, as of the osseous tissue, fractures, and necrosis; of the vascular tissue, wounds of bloodvessels, and aneurisms; and thirdly, the diseases and injuries of regions.

The description of the more special operations is connected with the treatment of the different injuries and diseases for which they are required. Throughout the entire work will be recognised the results of careful study and extended experience. It is not in our power to notice any of the subjects more particularly, but we cannot refrain from stating that the high opinion which was formed of the work on its first appearance, is more than confirmed by a review of the new edition, and unhesitatingly we subscribe our opinion that this is the best English treatise on surgery of our own time.

REFORM IN MEDICAL EDUCATION.

Some weeks ago we announced that the College of Surgeons contemplated a material reduction in the number of lectures to be attended by candidates for the college diploma. The proposal has been submitted to the College of Physicians, and received the marked approval of this learned body. We are not at liberty to mention the precise changes which are likely to be adopted, as they are understood to be under the consideration of the Colleges of Dublin and Edinburgh; but we may state that while it is proposed that not less than four years shall be devoted to professional study, only two years and a half will be occupied by a stated curriculum. It is probable that the number of *courses* of lectures to be attended will be diminished, and that the courses will be shorter. For instance, only one course of Physiology is to be demanded, and that a much shorter one than the 100 to 180 lectures to which it has extended in some schools. Two courses of Anatomy will be required, but only one of Surgery. These are the leading changes, the object evidently being to enable the student to devote more time to Hospital practice and Dissection, and to give him more opportunity for the best of all education—self-training. There will be two examinations; one anatomical at the end of the second winter session, the other surgical, at the close of the fourth year's study. Both examinations will be made far more practical than at present by the use of preparations, and requiring actual dissections and operations on the subject. It is not desirable to be more explicit until the details are finally decided upon, but we have said enough to show that the change is one quite in accordance with the spirit of the age, and that it is one likely to have a very beneficial effect upon students, teaching them to think, work for, and depend upon themselves; to discourage the system of cramming, and rather to test a man's knowledge, than be satisfied with certificates that he has paid for the opportunity of acquiring it.—*Medical Times and Gazette*.

THE NEW MEDICAL BILL.

THIS Measure has been prepared by the Board of Health, and but for the change of Government would have been brought in by the President of the Board. It was introduced and read a first time before the House of Commons, on Tuesday, March 23rd. The principal features of the proposed Bill are the following:—

"1. The present legally-constituted examining bodies in England, Ireland, and Scotland, respectively, to be re-enacted as the 'Examining Authority' under the Act for England, Scotland, and Ireland, respectively; not to be touched in their several rights of giving titles of honour; but their certificates, if purporting to confer any claim to registration as 'legally-qualified practitioner' to be subject to regulation as under:—

"2. A Council to be established, as nearly as may be representative of all interests concerned, taking as a basis (but subject to modification in detail) Mr. Hedlam's proposal that it should consist of seventeen delegates from the different examining bodies, with six members appointed by the Crown.

"3. The Council to have the right of attendance by its members or by deputy at any examination held for the purposes of the Act.

"4. The Council to have power, after due public notice, and with the approval of her Majesty in Council, to make orders and regulations as follows:—

"A. As to the form of keeping the general register and such special registers as may be kept; and as to the payment of registration fee by admitted candidates.

"B. Fixing, in respect of age, study, knowledge, and examination, the conditions under which the future candidate shall be admissible to the medical profession as a qualified medical practitioner.

"C. Determining, in respect of the several examining boards of the United Kingdom, what share may be fulfilled by the certificate of each of them acting separately, or by the certificate of two or more of them acting conjointly, as contributory to the total certification which shall give admission to the register.

"D. Disallowing the future certificates of any board which shall conduct its examinations inefficiently or irregularly.

"E. Establishing, or causing to be established, examination in particular branches of knowledge, professional or preliminary, where arrangements for such examination shall not have been otherwise sufficiently provided

"5. The Council to have power to disregister persons convicted of crime or guilty of infamous conduct in any professional capacity.

"6. The register and its titles to be protected from falsification; and non-registered persons to be excluded from professional privileges.

"7. Every registered person to be entitled to practice according to his qualifications in any part of the United Kingdom."

ADDRESSES FROM THE COLLEGES OF PHYSICIANS AND SURGEONS TO THE LORD LIEUTENANT.

On Thursday, the 18th instant, a deputation from the Royal College of Surgeons of Ireland attended at the Castle, to address the Earl of Eglinton on his return to Dublin as Lord Lieutenant of Ireland.

"MAY IT PLEASE YOUR EXCELLENCY—We, the President, Council, and Fellows of the Royal College of Surgeons in Ireland, beg leave to approach your Excellency, to congratulate you upon your arrival in Ireland, and to assure you of the great satisfaction we feel in the opportunity afforded to us of again welcoming to our country a nobleman who has already shown so warm an interest in its welfare. We take the liberty of most respectfully assuring your Excellency, that we shall be prepared at all times to contribute, by every means in our power, towards advancing the welfare of the public service in our particular department, and that we shall be happy to receive from the Government such suggestions as it may think proper to make, to enable us to carry this our determination into effect. We avail ourselves of this opportunity to respectfully solicit the kind attention of your Excellency to the state of this College as an educational institution, which we venture to hope is not unworthy of the character it has obtained, or of the benevolent designs of the Sovereigns who conferred upon it important powers and privileges for the public benefit, which it shall be our constant endeavour to promote, to the best of our ability."

The Lord Lieutenant replied:—

"GENTLEMEN—I return you my best thanks for coming forward to welcome me on my return to Ireland, and for the manner in which you offer me your congratulations. I am well aware that there is no class to which the community is more deeply indebted than the men of your profession; and the skill with which you alleviate the sufferings, and the zeal and liberality with which you devote yourselves to the service of your fellow-creatures, is a subject too large and too sacred for me to more than allude to on an occasion such as this. It will at all times give me pleasure to attend to the interests of your institution, and witness its efficiency; and I have no doubt that the high character it has borne will not be impaired under your auspices."

The address from the College of Physicians was presented on Monday, the 22nd inst. The College stated that, "Incorporated for the regulation of the profession of medicine in this part of the United Kingdom, we considered it our duty, upon several occasions, respectfully to invite the attention of her Majesty's Government to the state of the law for the preservation of the public health; and recently, at the request of the noble Earl, your Excellency's predecessor, we offered some suggestions relative to its amendment, regarding the sale of poisonous substances, certain of which were subsequently embodied in a bill introduced into Parliament—a measure which, we observed with regret, it was not intended should apply to Ireland. To this important subject we trust your Excellency's attention may ere long be directed. We desire to tender to your Excellency our assistance in the promotion of every measure devised for the preservation of the public health; and in conclusion, we trust that your Excellency will afford to us your countenance and support in our efforts to uphold the position, protect the interests, and extend the usefulness of the profession we represent."

In the course of his reply, his Excellency said:—"I shall be at all times ready to listen and advise with you upon any suggestion which may occur to you for the preservation of the public health, and for promoting the efficiency of the profession to which you belong; and I shall endeavour to secure for this country a participation in any useful measure that may be brought before Parliament."

APPOINTMENTS.

Mr. LAWRENCE has been appointed Sergeant-Surgeon to the Queen.

CESAR HENRY HAWKINS, Esq., has been appointed Surgeon Extraordinary to the Queen.

The Lord Lieutenant has been pleased to appoint Dr. LAW, King's Professor of the Institutes of Medicine, and Dr. BAKER, King's Professor of the Practice of Physic, to be Physicians in Ordinary to His Excellency.

PUBLICATIONS RECEIVED.

Clinical Lectures on the principles and practice of Medicine. By JOHN HUGHES BENNETT, M.D. Second Edition. A. & C. Black, Edinburgh: 1858.

The Journal of Practical Medicine and Surgery.

The Pacific Medical and Surgical Journal.

The Grievances of the Poor Law Medical Officers. By RICHARD GRIFFIN, M.R.C.S.

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INFANTILE PHTHISIS.

By ROBERT MAYNE, M.B.,

Physician to the Hospitals of the South Dublin Union Workhouse, and Lecturer on Practice of Physic at the Carmichael School of Medicine.

Infantile Phthisis is a disease of considerable interest to the practical physician. Rarely seen in the ordinary routine of hospital practice, it is yet by no means an uncommon disease under circumstances favourable to the development of tubercle; and occurring (as it most frequently does) in the acute form, its diagnosis is often difficult, although its course is rapid.

So far as regards symptoms, the following case

may be taken as a type of many which have fallen under my notice of late years; but the vesicular form in which some of the tubercular material appears to have been deposited constitutes a rare exception to the ordinary mode of development of tubercle; and for this reason chiefly it is that I have considered the case worthy of being placed upon record.

The woodcut, from a drawing by Mr. Connolly, represents the heart and lungs of an infant six months old. The lungs are tubercular, and so are all the glands at the roots of the lungs, at the bifurcation of the trachea, in the course of the œsophagus, and about the upper part of the pericardium. There is, in short, a combination of bronchial phthisis with pulmonary phthisis.



A, A, A, Primary branches of the Aorta.
G, G, G, Mediastinal Glands, enlarged and tuberculated.
T, Trachea. D, Esophagus.

The tubercular material is scattered nearly equally over all parts of both lungs. The tubercles, which are separated from each other everywhere by healthy lung tissue, vary from the size

of a pin's head to that of a very small pea; they show no particular predilection for the apex of the lung more than for the base, for the left lung more than for the right; and they are still in the crude state, at whatever part of the lung they are examined.

The lungs also contain a number of vesicular bodies, or false hydatids—some perfectly transparent, some partially others wholly opaque; the latter evidently filled by a concrete tubercular material, which causes the opacity.

That all the tubercles in these lungs were originally vesicular is certainly not the fact, for many of them are irregular in outline, and on the most careful examination present nothing bearing the remotest resemblance to a cyst or envelope; but that some of them were of vesicular origin scarcely admits of doubt, because the different stages of growth through which the vesicles pass in undergoing the tubercular transformation were plainly visible in the recent lungs, viz.:—

1st. A transparent vesicle filled with limpid fluid.

2nd. This vesicle presenting one or more opaque spots, arising from the deposition of tubercular material in its interior.

3rd. The entire vesicle opaque and solid, its interior being wholly occupied by the morbid deposit.

This case may possibly recall to the reader's mind the hydatid theory of tubercular development, now obsolete, but at one time strongly advocated by Dr. Baron.*

"Tubercles," he says, "in their commencement, are small vesicular bodies (i. e., hydatids), with fluid contents. These bodies subsequently undergo transformations, on the nature of which their tuberculous character depends. The transformations commence with an opaque spot, which advances with different degrees of rapidity. In some cases the coat or cyst of the tubercle is the part that is first transformed; it loses its transparency, increases in density, and becomes almost cartilaginous. Sometimes the transmutation goes on in a different manner, the consolidation beginning in the interior, and ultimately converting the whole into a solid tubercle."

This description might be applied verbatim to some of the tubercles in the specimen before us.

Dr. Baron generalized too hastily; but that there were some grounds for his "hydatid theory" must be admitted. The "encysted tubercles" of other authors were, probably, identically the same as some of those represented in the woodcut.

In infantile phthisis I have very constantly found the tubercles scattered through all parts of both lungs so equably, that comparative percussion has yielded no very satisfactory results; and this has been the case, whether the upper and lower portions of the same lung, or the right and left

lungs, respectively, have been compared with each other. Nay, more—the tubercles, in these cases, are often so minute in size, and so perfectly insulated in the midst of healthy lung tissue, that but little positive percussion dulness can be perceived anywhere. It not unfrequently happens that the tubercles remain in the crude state to the very end, so that the stethoscopic signs characteristic of softened tubercle are wanting. The Auscultator derives no assistance from signs furnished by the voice, because the voice is not yet developed; nor from the sputa, because none are expectorated; and to add to the difficulty, even the constitutional symptoms are apt to differ widely from those usually observable in the adult. The chills and the sweats so common in the phthisical hectic of the more advanced periods of life, being frequently altogether superseded by profuse and obstinate diarrhoea in the infant.

The child whose lungs are sketched in the adjoining woodcut had been delicate from its birth. For several weeks it had been visibly declining in health. The prominent symptoms were, cough, which proved very rebellious to treatment, irritable stomach, rapid emaciation, and uncontrollable diarrhoea. The sedative and demulcent medicines prescribed for the cough, the astringents intended to control the diarrhoea, and the cod-liver oil used assiduously by the endermic method, were all utterly useless. The emaciation made such rapid progress, that in a surprisingly short period of time the child's appearance was totally changed. The stethoscopic signs were those of bronchitis, chiefly; but the rapid emaciation, the loss of appetite, the irritable stomach, and the incessant diarrhoea, pointed unmistakably to some more serious lesion. The inference appeared to be, that that lesion was tubercle, and this diagnosis was fully verified by the *post-mortem* examination.

It should be mentioned, that the mucous membrane of the small intestine was highly vascular in patches, particularly towards the lower end of the ilium, but without any positive ulceration.

The mesenteric glands were slightly enlarged, but without any positive tubercular infiltration.

THE MEDICAL PROFESSION.—A deputation of medical practitioners waited, on Wednesday, on Lord Naas, on the subject of the amended bill in reference to the medical charities act of Ireland, lately introduced into parliament. Dr. Mackesy opened the proceedings by entering into the clauses of the bill which are pronounced by the profession to be objectionable. The clause appointing non-medical men for the present medical inspectors was dwelt on at great length, and resolutions from the Colleges of Physicians and Surgeons disapproving of it were read, and a universal feeling expressed of its being not only unjust to the destitute poor and to the rate-payers, but to the medical profession. The other questions—a minimum salary of £100 per annum for poor law medical officers—the necessity of cancelling tickets got by persons in comfortable circumstances, were, with other important matters, alluded to, in all which Lord Naas not only joined with great interest, but evinced much knowledge on the entire question.

* *Vide* Illustrations of the Inquiry respecting Tubercular Diseases, by John Baron, M.D. London, 1822.

ON THE
PROPHYLACTIC TREATMENT OF CERTAIN DISEASES,

ESPECIALLY PUERPERAL FEVER.

By HENRY KENNEDY, A.B. & M.B. T.C.D.

(Read before the Obstetrical Society, March 15th, 1858.)

The following brief remarks have been put together solely to elicit discussion on a question which appears to myself entitled to more specific attention than, as far as I am aware, it has yet received; and, for reasons to be given farther on, I know no Society where the point can be more properly discussed, than in the one I have now the honour of addressing. It is to the prophylactic treatment of certain diseases that I would invite the attention of the Obstetrical Society; and as a foundation for what I am about to advance, I shall give a very short notice of a few cases, which, though taken at random, as I may so say, will yet answer the object I have in view.

CASE I.—A boy of ten years of age was attacked with pure fever, which proved to be as heavy as is ever seen at that period of life. When just what might be called convalescent, fever seemed again to light up; but this ushered in, not common fever, but a very sharp attack of acute rheumatism, several of the larger joints being engaged. Under the use of bark, in full doses, the boy got rapidly well.

CASE II.—A young person, of twenty years of age, was admitted into the pay-ward of Sir P. Dun's Hospital, labouring under a sharp attack of scarlatina, through which she passed well. When just recovering, and the skin coming off, she complained of loss of appetite and flying pains through her limbs. Two of the larger joints—one wrist and one knee—became much swollen and very painful, presenting all the characters of acute rheumatism. From this attack she soon recovered.

CASE III.—Mr. —, a student of T.C.D., aged seventeen, came under my care, labouring under a very severe attack of scarlatina. The fever ran very high, and general pains over the body were much complained of. There was marked heat of the surface, giving the feeling of calor mordax; and there was a tendency to diarrhoea, rather than the disease itself. The rash was very well developed, of a bright hue generally, whilst the hands and feet were livid and congested. His pulse was weak, but not very quick. For eight days this case went on comparatively well, with one exception, that his nights were bad. He generally raved at this time, and on more than one occasion it was found difficult to keep him in bed. On the eighth morning there were signs of what I have been in the habit of calling secondary fever, and which appears to me quite analogous to what has been so long observed in cases of small-pox. With these signs some swelling had shown itself

on the right side of the neck and under the ear; it was of a brawny hardness, and the rapidity of its progress was truly remarkable, for by the next day (the ninth) it had not only involved the entire side of the neck, but had even spread down over the clavicle, so as to engage the pectoral muscles, the right, however, much the most. The fever had now risen much higher than at any former period. On the tenth day matters were still worse, as his breathing had become affected; and without any trouble I detected a very well-marked but dry frotement over the heart; he had no pain here, however. Though I had able assistance, it is almost needless to add, that with this complication the patient rapidly sank. This was the fourth case I had seen where pericarditis complicated an attack of scarlatina.

CASE IV.—In the year 1852, a woman named Quinlan, twenty-five years of age, and five months pregnant, was admitted into Cork-street Hospital, labouring under fever of a very intense type. It had the characters of inflammatory fever; the pulse 130, and bounding; the skin very hot; with great distress and restlessness. The pains she complained of as being of a most severe character, and extending over nearly the whole body. She had suffering, too, referred to the left chest, but the stethoscope did not detect anything wrong. My attention was caught by the case, from my first seeing it, for it was clear there was something very unusual about it. In the state described, but the symptoms getting steadily worse, particularly as regards the violent pains, she continued an entire week, when she miscarried, with little or no hæmorrhage, however. She had now been about fourteen days ill. For two days subsequent to this event she appeared not to be worse; the pains then again became most violent, and in the course of two or three days there was evidence of rapid effusion having taken place into several of the larger joints, and some of the smaller ones. With this state, I now, for the first time, detected pneumonia in the left lung. Even with these signs the patient held out till the twentieth day, having undergone as great suffering as it has been my lot to witness in connexion with fever. On subsequent examination I found that the joints were filled either with pus or sero-purulent liquid.*

Thus have I sketched, in the very briefest manner, four cases of disease arising in the progress of other affections—viz., fever, scarlatina, and the puerperal state. None of them present features of any extraordinary interest, if, possibly, we except the last, and this only on account of the period of pregnancy at which the disease appeared—that is, at five months. But though fever, scarlatina, and the puerperal state are very different, yet the cases given are connected, in one point at least,

* I have seen cases in men exactly analogous to this one.

with one another; for you will recollect that each of the four had severe pains of the limbs and joints as one of its most characteristic symptoms. In fact, each had one or other modification of rheumatism. Now, such cases are not of very frequent occurrence, and you may recollect that on a former occasion I brought before the Society some cases of acute rheumatism, which occurred while the rash of scarlatina was still out; and this was done because such examples showed a rare complication of this disease. In point of fact, the cases which have been detailed are very exceptional; for one such, you will have fifty instances where no such complication presents itself. How is this to be explained? Why is it that an exceptional case is now and then met with? Some have explained the occurrence by saying that, especially in scarlatina, the nature of the disorder was closely allied to that of rheumatism. But this does not appear to myself at all satisfactory; for if it were so, such cases as those I have detailed would be much more frequent than they are; and besides, the rheumatism or rheumatic pains, as the case may be, are not confined to scarlatina alone, but, as you are aware, show themselves in almost all the acute affections. Hence, then, all would have to be classed in the one category, which would clearly be erroneous. The explanation I would venture to offer—that is, for the occasional complication of rheumatism with other acute affections—is this: that it occurs because the patient, at the time of the acute attack, was not in absolute health, and was, most probably, predisposed to rheumatism, the tendency to which we know is most wide-spread. Hence we have a rational explanation of the occurrence of pains, whether mild or severe—nay, even of acute rheumatism itself. If the slightest injury be, in one constitution, followed by erysipelas or diffuse phlegmon, which in another passes harmlessly away, what can we attribute it to but a difference of constitution? Nay, the very same individual may exhibit different effects at different periods, of which I had a striking example, some years back, in the case of a woman whom I was treating for a very large goitre, which had begun to interfere seriously with both her swallowing and breathing. In this case I used four setons; and it is well worthy of remark, that but one, and that not the first, was followed by high constitutional irritation. Is there any other way of explaining such a fact, except a difference of the constitution at the two periods?

This point might be put in another aspect. I believe that if the system be absolutely healthy, all the ordinary diseases—such as fever, influenza, &c.—will pass it by unscathed. In other words, the system will resist the poison, if exposed to it. In my own person I was exposed for several years to fever and other acute affections admitted into the Cork-street Hospital, being in the constant habit of making examinations of the chest; yet I

escaped, being, in truth, always in rude health; and in 1848 I have the strongest conviction on my mind, that the poison of fever passed through my system without knocking me down. At last, in 1852, my general health being for some time previously below par, I did catch fever, being quite cognizant, at the moment, of having taken it from a particular case.

I would only further adduce here influenza, as a well-known affection which produces the most marked contrasts when it comes amongst us as an epidemic; being in numerous instances so serious as to raise materially the bills of mortality, especially amongst the old; whilst in others, again, it can scarcely be said to touch them at all.

This line of observation might be easily applied to numerous other affections, but my limits do not allow my alluding to them further here; nor, indeed, is it necessary, for I presume the point I would bring prominently forward will be admitted and is recognised by all. But what then, some one will ask, is there to be made of the fact, that certain constitutions are more susceptible of epidemic influences than others? The answer to this question is the very object of these remarks; and it is simply this, that being cognizant of the fact, we ought, as far as we could, to try and avert it. If we suppose one of a family attacked with scarlatina, and the others, of course, likely to take it, the idea I would suggest is, that these last should be prepared, if the expression may be used, for the disease. You will observe that this is not the same idea as giving belladonna to prevent the infection entirely, but to improve the constitution, so as to enable the child to pass favourably through the attack. As regards scarlatina, this idea, if I recollect rightly, I heard suggested, some years back, by my friend Dr. Fitzpatrick; but it is more especially to the parturient state that I at present wish to call attention. We know that during certain epidemic influences, it is only some pregnant women that are attacked with puerperal fever; and I would add, there appears to me no rational objection why efforts should not be made to prevent the occurrence of such a serious disease. On a question of this nature, the first impression would certainly be, that nothing effectual could be accomplished in preventing the attack. I believe this idea to be decidedly erroneous; and if I have carried my hearers with me in these remarks, they will probably agree with me. It is quite true that, as far as I am aware, nothing of a specific treatment has yet been attempted to prevent the onset of puerperal fever. Everything which science could teach has, of course, been carried out in this, and in all similar institutions; but what I would submit for consideration is the management of the patient herself. On this, I repeat, we have no experience. There is, however, one fact of a very striking character, and which appears to bear directly on the point under discussion. Want of time has prevented me referring to the precise details; I

allude, however, to the practice, as it may now be called, of giving medicine for the express purpose of enabling the constitution to resist disease; and this in a region of the globe where, above all others, it seems to exist in the greatest degree of intensity: I mean Sierra Leone. Most of you are probably aware that the results, both there and elsewhere, have been most striking and satisfactory; and that, almost as surely as the men are treated on this principle, so surely do they resist the miasmata engendered in the locality.

Now, let us apply a knowledge of this fact to the point in debate. A tendency to puerperal fever exists; parturition must go on at a particular period; and the great majority of women are, I believe, seen some time previous to their confinement. What, I ask, is to prevent the plan spoken of above being carried out? It would not necessarily apply to every case; but where there were grounds for supposing that the system was not in good health, I see no good reason why it ought not to be attempted to improve it.

It would be entirely out of my province to enter here on the particular symptoms which should direct the practitioner in deciding whether the constitution were in a favourable state or otherwise, and so I shall not speak of them. But I may be asked, what medicine or medicines would be most likely to be of use under the circumstances? The reply would be, some modification of what is known as tonic treatment. This would include the ordinary vegetable bitters, iron, and mild alteratives; but, above all, some preparation of bark, especially the quinine. It is this last which is used on the coast of Africa with such marked effect; and it is well worthy of note, that two or three grains daily are amply sufficient for all purposes. I cannot think for a moment but that the advantages of the plan would far overbalance the expense and trouble entailed by carrying it out. The subject itself is one of grave importance, and as such I submit it to the consideration of the Society.

In conclusion, I may be permitted to throw into a series of propositions the substance of the foregoing remarks.

1. That the various modifications of rheumatism may be often observed in the progress, or at the decline of all acute affections, especially the exanthemata.
2. That diffuse inflammation, including purulent effusion into the joints, may be also met in the same diseases.
3. That the explanation of these phenomena lies in the fact, that at the time of their occurrence the general health of the patient is deranged.
4. That puerperal fever is to be explained on the same principle.
5. That a knowledge of these facts should induce us to try and avert their consequences, by improving, beforehand, the general health.
6. That this applies with peculiar force to the

state of pregnancy, and more especially when an epidemic tendency to puerperal fever exists.

7. That certain medicines, but more particularly quinine, and mild alteratives, would appear to be best suited for the purpose.

In the discussion which followed, Dr. McClinton, with whom I had previously conversed, stated, that about one month previously, when a tendency to puerperal fever existed, he had adopted the plan in about thirty cases; and he considered he was justified in saying with advantage. The epidemic tendency had since ceased.

REPORTS OF MISCELLANEOUS CASES, WITH REMARKS.

By HENLEY THORP, M.D., F.R.C.S.I.,
Letterkenny.

(Continued from page 102.)

Case of Pleuritic Effusion, with Dextrocardia.—Absorption of fluid.—Development of friction sounds and Tactile Fremitus, occasioned both by the heart's action and the respiratory movements.

Hugh Hegarty, aged 17, a labourer, of rather delicate appearance, and lymphatic temperament, admitted into hospital on the 13th February. He states that he generally enjoyed good health until about two months previous to the present date, when he began to be troubled with slight cough and pain in the left side. He was, nevertheless, able to follow his usual employment until ten days ago, when, after exposure to cold, the pain in the side became greatly aggravated, striking from the breast to the shoulder. These latter symptoms were preceded by a rigor, and followed by general febrile excitement. Present condition:—short cough; no expectoration; pain in left side increased by coughing; can lie with equal ease on either side; sleeps tolerably well; pulse 100, contracted and quick; respiration 30. Physical signs:—The entire of the left side yields a dull sound on percussion; in front and above this dullness extends inwards only to the corresponding margin of the sternum, but inferiorly crosses the median line a short distance above the ensiform cartilage, and is perceptible in a marked degree over the right hypochondriac and epigastric regions, where, moreover, considerable fulness exists. The epigastrium is tender, and pressure causes the pain to extend upwards along the left side. The heart's impulse is most perceptible about two inches and a half below the right nipple; its sounds are normal, and its action regular. There is a total absence of all respiratory sound on the left side, inferiorly and posteriorly, and in front as far upwards as the fourth rib; elsewhere over the entire of its surface the respiratory murmur appears distant, indistinct, and tubular in its character. Neither vocal vibration, ægophony, or friction sounds are to be detected. This side is visibly fuller than the right. Spe-

cially in front, the increase of superficies amounting to an inch and a half, when measured from the spine to the centre of the sternum, on a level with the sixth rib. The intercostal sulci are for the most part obliterated. Supplementary respiration is carried on by the right lung; over it the respiratory murmur is puerile, and mixed, when the patient makes a deep inspiration, with an occasional sonorous and sibilant râle. He was bled to twelve ounces, and ordered two grains of calomel, with one-twelfth of a grain of tartar emetic, and two grains of Dover's power, three times in the day.

February 15th.—No material change. To be cupped on the left side, and continue the pills.

17th.—Slight mercurial fætor; no pain in left side; feels uneasiness, however, in the right hypochondrium, at the margin of the ribs, when he coughs. Anteriorly the dull percussion sound has extended quite across the median line, almost to the *right* border of the sternum. The heart, however, has not undergone a corresponding change of position in the same direction; on the contrary, its impulse is now most distinct near the ensiform cartilage. Posteriorly, in the neighbourhood of the scapula, the respiratory sounds are more distinct, and a slight *frottement* is here and there perceptible towards the end of expiration. A blister to be applied in front to the left side, and the pills continued.

20th.—Pills were omitted yesterday, in consequence of their producing sickness and dysenteric symptoms, and a rhubarb draught, with laudanum, administered. Ptyalism established. Not much alteration in the physical signs, except that the percussion dulness in front is diminishing, and evidently less distinct in the sternal region.

22nd.—Still further diminution of dulness in the upper region of the chest, both in front and behind. Heart evidently resuming its normal position; its sounds, &c., are now loudest at the left edge of sternum. A blister to be applied to the left side, posteriorly; to have the effervescing draught.

24th.—Feels greatly improved; cough trivial; pulse 86; urinary secretion more abundant than at any previous period of his illness. Physical signs, singularly altered since last report: dulness over the left side, and especially in front, much less pronounced; vocal vibration everywhere more perfect. The cardiac action is now felt and heard almost in its original position. The breathing sound, posteriorly, in the scapular and inter-scapular regions, as well as in front over the infra-clavicular, is tolerably distinct, although still somewhat bronchial in tone; but from the third rib downwards, and from the lower end of the sternum backwards to the junction of the lateral with the postero-inferior region, a softish, rubbing friction sound is heard. This is loudest in the true cardiac region, and is here influenced by the heart's action as well as by the respiratory movements. It is irregu-

lar; not exactly to-and-fro, although most distinct when the patient is made to hold his breath. During the rise and fall of the ribs it is still more interrupted and uncertain in its character.

March 2nd.—The patient goes on steadily improving in every respect. The physical phenomena that now present themselves are the following:—Percussion sound almost normally resonant in front; gradually loses its tone towards the spine, and is flattest posteriorly and inferiorly. Heart occupies its natural position. Over the entire of the left chest, from the fifth rib downwards, both anteriorly and posteriorly, is audible a rough, grating *frottement* of ascent and descent. It is loudest in front, in the neighbourhood of the nipple, but less regular in its character than posteriorly. In the former locality it is still most evidently influenced by the heart's action, as well as by the respiratory movements. It is most distinct towards the end of expiration; *and when the patient maintains his ribs in that position in which they are most depressed*, the friction fremitus is evidently "although irregularly to-and-fro, and is perceptibly communicated to the hand placed over the region of the heart; towards the end of inspiration it gradually lessens, and ceases altogether when the patient is directed to make a deep inspiration and hold his breath. There is little difference between the two sides of the chest, in regard to their relative expansibility; the left side is found, upon admeasurement, to be still a trace wider than the right. Pulse quiet. Ordered bark mixture, with hydriodate and bicarbonate of potash, and compound tincture of iodine to be applied to the side.

The patient left the hospital after a few days, the friction phenomena remaining as above described.

Dr. Walsh, in his recent work upon diseases of the lungs and heart, at page 198, makes the following observation:—"Cardiac action may be supposed capable of producing pleural tactile fremitus, but I do not remember ever to have observed it." Dr. Stokes,* however, refers to a case that occurred several years ago at the Meath Hospital, in which "the signs, in addition to those ordinarily observed in pleurisy, were the friction sounds of ascent and descent, and a friction sound attended with vibration perceptible to the hand, and synchronous with the impulse of the heart, which continued when respiration was suspended." The case just detailed furnishes another example in which the phenomenon referred to was distinctly observed; and the diagnosis between it and the tactile friction vibration, of pericardial origin, was satisfactorily established, irrespective of the co-existing physical signs and symptoms of pleural disease, by the varying distinctness of the fremitus, according to the position of the ribs, its absence during forced inspiration, and its marked intensity

* Stokes on Diseases of the Heart and Aorta.

when respiration was suspended, under the converse or most contracted condition of the chest.

It is quite possible, as suggested by a high authority, that in a case of pericarditis complicated with pleurisy of the left lung, different varieties of audible and tactile friction phenomena might exist: first, pleural—those of ascent and descent, depending on the motion of the ribs; second, pleural, produced by the impulse of the heart, and consequently synchronous with it; third, true pericardial, synchronous also with the cardiac action. Now, the phenomena observed in the foregoing case may serve to establish the differential diagnosis of sounds and vibrations *proper to the pericardium*, and analogous physical signs produced by the heart's action, *extrinsic*, or of pleural origin. It must further be remarked, that in Dr. Stokes's case, already referred to, "the sound ceased when the patient assumed the erect position."

Case of Functional Amaurosis, confined to one eye.

In the month of November, I was sent for to see Miss K—, æt. 26, an unmarried person, of leuco-phlegmatic appearance and sedentary habits, a milliner, constantly employed at needlework, for many years subject to neuralgic dysmenorrhœa, and fits of an hysterical character. On the second evening before my visit she was suddenly seized with a severe pain in the left eyeball and temple, which continued during the night, but subsided on the day following. The pain, according to her own account, was attended with transient redness of the eye, and lachrymation. In the morning she discovered that the vision of the affected eye was almost entirely lost. Superficially inspected, the organ appeared healthy; there was neither conjunctival nor sclerotic vascularity; the pupil was regular, and contracted actively. However, upon a more particular examination I discovered that the contractions of the iris were altogether sympathetic, and depended on the influence of light upon the sound or opposite eye, as, when the latter was closed, and the affected one exposed alone to the luminous rays, the pupil remained motionless, or rather dilated. The sensibility of the retina was not entirely absent, for the patient still retained the power of distinguishing the outlines of large objects placed near her. What was the nature of the affection? Was it inflammatory or congestive, or of a nervous or hysterical character? The pain and redness, in the first instance, according to her own statement; the rapid loss of vision, and the previous existence of head symptoms, were circumstances which might be supposed to countenance the former view, and to call for prompt antiphlogistic treatment; but, on the other hand, the history of the case, the suddenly severe pain in the temporal region, as well as in the eyeball, attended with lachrymation; the

aspect of the patient, her menstrual irregularities, and the total absence of all vascularity of the eyeball, or of any cause adequate to give rise to an inflammatory attack of so sudden and destructive a character, seemed to justify the adoption of the opposite opinion—that of its being nervous or functional in its nature. I acted upon this latter explanation of the symptoms, and treated the case as one of hysterical amaurosis. I regarded the pain which in the first instance affected the temple as well as the eyeball, as neuralgic, and the loss of sensibility of the retina as analogous to the anæsthesia occasionally observed in other parts and organs, as a symptom of the hysterical diathesis. I accordingly prescribed the following:—

R. Valer: Ziuci, gr. xij.
Pil: Galb: Comp: 3ss.
Ext Humuli, gr. xii.
Fiat Massa in Pil: xii. dividenda.
Opiat i. ter in die.

A small blister was applied to the left temple.

The patient was directed to take exercise in the open air, to keep her feet warm, and to use tepid shower-baths. As she complained of pain in the pelvis and hips, a belladonna plaster was applied to the sacral region.

Under this plan of treatment, pursued for nearly three weeks, there was a slight improvement in the eye, both as respects its vision and the state of the pupil; at the next period, however, the dysmenorrhœal symptoms were unusually severe. The menstrual nîsus was attended with excruciating pain in the uterine and ovarian regions, in the back and hips, with sleeplessness, vomiting, dysuria, paleness, and coldness of the surface and a depressed circulation. The catamenia were slow in appearing, and were scantily discharged. She was ordered ammonio citrate of iron with aromatic spirit of ammonia; and of the following pills, two each night:—

R. Pil: Galb: Comp: Pil: Ruffi aa. ʒi.
Ext: Hyosciam: gr. xii.—div. in Pil. xii.

There was now a gradual but steady amendment. The function of the eye was slowly but entirely restored. The dysmenorrhœa, however, continued, although with greatly diminished severity.

CHLOROFORM IN VOMITING IN CONSUMPTION.—Dr. Baron calls attention to the advantage he has derived from the administration of small doses of chloroform in the vomiting which so frequently accompanies the cough in phthisis. In all cases in which the plan was tried, amelioration rapidly ensued. He gives 12 drops in a gummy julep in the course of the twenty-four hours, and in some cases still smaller doses relieve. He is about to try the same treatment in the vomiting of pertussis and pregnancy.—*Gazette Méd. and Medical Times and Gazette.*

Proceedings of Societies.

ASSOCIATION OF THE FELLOWS AND LICENTIATES OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS, IRELAND.

April 7th, 1858.

Dr. AQUILA SMITH (V.P. Col. Phys. in the Chair.)

Dr. MOORE read a communication on the

*Therapeutical properties of Larch Bark,**

recently introduced to the profession by Dr. Chas. Frizell, of this city. Dr. Frizell having found a decoction of the inner bark of the "pinus larix," very efficacious in his own person, thought it worthy of minute analyzation, and accordingly placed it in the hands of Professor Aldridge, for whose skill and attention in the completion of it, Dr. Frizell feels deeply grateful. Amongst the constituents of this bark we may mention starch, gum, resin, and tannin. Dr. George Alexander Kennedy, Physician to the Cork-street Fever Hospitals, found the extract of larch bark in doses of three grains every fourth hour, very efficacious in arresting epistaxis and intestinal hæmorrhage, in a young man aged 18 years, labouring under typhus fever; the hæmorrhage in this case was gradually, but effectually, arrested in thirty-six hours; he also prescribed it, with much benefit, in cases of bronchitis, with profuse expectoration setting in during convalescence from fever; in such cases he gave it in three grain doses every third or fourth hour.

Dr. Hugh Carmichael, of this city, (who was the first to advocate the employment of turpentine in iritis,) treated a case of bronchitis, with bloody sputa, which occurred in a young lady aged thirteen years, with extract of larch bark, gr. 3, ipecachuana, gr. $\frac{1}{2}$, three times daily; this treatment had the best effect in diminishing the bronchial super-secretion, in checking the hæmoptysis, and imparting general tone to the system. A case somewhat analogous to the last was treated by Dr. Moore (Physician to the Institution for Diseases of Children,) with $2\frac{1}{2}$ grain doses of the extract of larch bark every fourth hour, counter irritation, with liniment crotonis, being used at the same time. This patient, a young man, aged 17 years, had a cough of six weeks standing, with profuse expectoration streaked with blood; in ten days he was sensibly benefited, and continued to amend steadily. The first effect of the extract in this case was to stimulate very sensibly the urinary secretions. The tincture of the larch bark is of a dark carmine colour, has an agreeable "pinic" smell; in taste it partakes of the oleo resins, is styptic, and carminative; it is one, if not the most

elegant form at our disposal, of prescribing a terebinthinate, either as an addition to a compatible expectorant or other fluid mixture, or to be given "per se." From the experience of those who have tried it, it is conclusive that the larch bark is a stimulating, slightly styptic, expectorant, with a direct tendency to the mucous membranes in general, and, in the first instance, to the genito-urinary in particular, consequently its use is equally indicated in fluxes from the urethra or bladder. The dose of the extract is from gr. i. to v.; of the tincture, from 3ss. to 3iij.

Dr. SMITH read a

Case of Latent Pneumonia,

which occurred in a young lady, aged 18 years. There was dullness on percussion over the base of the affected lung, but no coloured sputa; no cough or crepitus. In this case the first treatment exhibited by Dr. Smith was calomel, tartar emetic, and opium, which was changed to hydrarg. cum creta, tartar emetic, and Dover's powder. Turpentine stupe were applied to the affected side. The after treatment was iodide of potassium and liquor potassæ; tinct. of iodine was painted over the base of the lung; when the dullness still persisting, a blister was applied. The recovery was complete within one month.

In connection with pneumonia Dr. LEES cited two cases which he had recently seen, in which, after resolution was established, delirium set in. In one of the cases the paroxysm of delirium lasted twelve hours. Both patients did well; the treatment employed being full opiates.

BELFAST CLINICAL AND PATHOLOGICAL SOCIETY.

Session 1857-58.

February 6th, 1858.

The PRESIDENT in the Chair.

Asphyxia from Abscess of the Pharynx.

Dr. MURNEY, V.P., reminded the members that at the last meeting Mr. Johnston had presented a child, three years old, in whom scarlatina had been followed by extensive swelling of the neck, together with the formation of a large post-pharyngeal abscess, protruding over and pressing upon the base of the tongue. The part affected was examined by several members, and some stated that they observed pus on the tongue, as if the struggles of the patient (for he was very violent) had caused a rupture of some thinned portion of the wall of an abscess. It was deemed advisable that the patient should be admitted into hospital, and for the purpose of examining the swelling, Mr. Johnston placed the extremity of a wire-nippers, covered with lint, between the teeth, while Dr. Murney introduced his little finger. This he had not succeeded in doing (for the patient struggled very violently) when both gentlemen observed the

* The extract and tincture of larch bark (*extractum et tinctura pinus laricis*) can be obtained at the establishment of Messrs. Bewley & Evans, Sackville-street.

lips becoming blue, and the respiration to be suspended. The wire-nippers between the teeth was immediately removed; cold water was dashed upon the surface; a window was opened, and a current of air allowed to play upon the surface of the body. As the respiratory function was not restored, tracheotomy was performed; some blood was sucked from the wound and from the trachea, and a cut portion of a good-sized flexible catheter introduced. Artificial respiration was carried on for a considerable time, but without success. Dr. Murney considered that the fatal result was produced by spasm of the glottis; and observed, that had operative interference of any kind been carried out, the operation would have been looked upon, by the friends of the patient at least, as the cause of death. Fortunately, however, nothing was done, save an attempt to examine the part. The time occupied in this was not more than from five to eight seconds, when the cessation of respiration required prompt attention.

Mr. BROWNE, V.P., introduced a woman having a *large Scirrhus Tumor of the Breast*. The patient was aged 55, had married late in life, and was mother of one child. The tumor was first observed two years since, and had been open for three months. Mr. Browne had declined all operation, it being his opinion that no case of scirrhus should be interfered with by the knife. He contrasted with this case one of pure epithelial cancer, which he had lately removed from the lip of a man aged 56 years, and which he considered not at all likely to return.

February 13th, 1858.

Dr. GORDON presented a specimen of
Cartilaginous Tumor, removed from the region of the Parotid Gland.

The patient was a female, *æt.* 50. About seven years ago the tumor was first noticed; it was not painful then, nor did it become so at any subsequent period. Six weeks ago, when Dr. Gordon saw the patient for the first time, the tumor was firm, almost hard in some points, while in others it gave the impression of tensely-filled cysts. The surface was slightly knobbed. When the patient was admitted into hospital, previous to operation, the tumor had increased about a third, and felt much softer, but did not cause any uneasiness, except from its bulk, which was considerable. It was removed on Thursday, the 11th, and on removal it was found to be enclosed in a strong fibro-cellular envelope, and in a dense, firm external or proper cyst. The contents consisted of a hyaline substance, containing finely granular nuclei, about $\frac{1}{16}$ of an inch in diameter. The enlargement of the tumor, which had been progressing for some time previously to the operation, seemed to be due to a serous infiltration, rather than to any increase in the solid contents, as, on section of the tumor, a large quantity of fluid oozed out, diminishing it in bulk materially.

Impetigo of the Scalp.

Dr. WALES introduced a child, *æt.* 3 years, of strumous habit, who had been placed under his care nine days before. About two months since the child was attacked with an eruption, which Dr. Wales believes to have been eczema. The eruption commenced behind the left ear; pustules formed in the neighbourhood, extended rapidly over the entire head (not, however, crusting it over in their progress); and ended in ulcers, which gradually deepened and extended. Almost simultaneously, but subsequently, pustules appeared, in limited numbers, on the trunk and extremities, pursuing a similar course. When presented, the child's head was covered with deep, circular, unhealthy ulcers, surrounded by a narrow inflamed border, of a dusky-red hue, discharging pus and blood, and occasionally coalescing. The hair was quite absent in the ulcerated spots (seemingly from the extensive destruction of substance), but was present on the intervening ridges, and unaltered in appearance. The forehead, sides of the face, neck, back, abdomen, and extremities, also presented a few large, but superficial ulcers. Some of the ulcers on the scalp penetrated almost to the bone, and some on the upper and lateral parts of the neck, were so deep as to endanger the vessels. After a careful microscopical examination, Dr. Wales could not discover any parasites, and thought that the disease was, probably, that described by Willan and Bateman, as "*impetigo rodens*," and named by Neligan, "*lupoid ulceration of the scalp*." This idea was strengthened by the fact that the disease had commenced as eczema, probably merging into eczema impetiginodes, and ending in consequence of the cachectic state of the system in destructive ulceration. The treatment adopted by Dr. Wales consisted in the administration of cod liver oil and syrup of iodide of iron, and meat broths. Nitrate of silver was applied to the ulcers, and subsequently warm poultices. A healthy clean surface was thus obtained, and then the soda wash was applied, together with an ointment composed of soda, oxide of zinc, and lard. Under this treatment the case is progressing most favourably.

February 20th, 1858.

The PRESIDENT in the Chair.

M. GROUT, of Hamburg, who is the subject of an extraordinary congenital fissure of the sternum, was introduced to the society.

February 27th, 1858.

Mr. BROWNE, V.P., detailed the particulars of

A case of Amputation at the Hip-joint,
and presented a portion of the limb removed. The patient, *æt.* 21, was of strumous appearance, though possessing considerable muscular development. In July, 1857, he had sustained a fracture of the left

femur, at the junction of its upper with its middle third. At the end of nine weeks the fracture was so far united as to permit him to walk without pain, by the assistance of a crutch, although some swelling still remained at the seat of fracture. In the following November, in consequence of a fall, pain was set up in the injured part, and he was confined to bed. Three weeks after, on turning in bed, he felt the fractured part give way. On 24th December he was admitted into hospital. Symptoms:—Complete mobility at seat of fracture, no eversion or softening, and considerable hard swelling where the bone had been broken. For six weeks no visible change took place, except a gradual progressive increase in the size of the swelling. On his admission it had been carefully bandaged and put up with Liston's long splint. An examination of the limb, on February 5th, was followed by pain and increased tumefaction, which was much softer than the original swelling. On the 14th an exploring trocar was introduced; blood flowed freely from the puncture; the blood was pronounced by Dr. Murney to be healthy. After several consultations of the surgical staff, amputation was resolved on. On operation, it was found the entire end of the femur, from point of fracture to the acetabulum had disappeared, leaving the cartilage of incrustation, and that a large sac existed, containing several pounds of fluid and coagulated blood. The patient never completely rallied, and died twelve hours after the operation. Dr. MURNEY had examined the mass removed, and believed that it could not be pronounced malignant on microscopical evidence. Dr. CUMING stated that he had discovered cancer cells in a portion of the mass which he had examined microscopically.

Mr. BROWNE also exhibited the head and neck of a femur, removed from a man who had fallen from a height of seventy feet. The specimen was removed after death. The great trochanter had been separated from the shafts, and the bone at the trochanter completely comminuted. Mr. Browne observed, that even if the man had not received other injuries precluding his recovery, amputation at the hip-joint would have been his sole chance for life; but independently of the injury to the hip, he had received a fracture of the skull and of the clavicle, of the humerus in two places, and had the feet lacerated.

ROYAL DUBLIN SOCIETY.

March 26th.

MR. EDWARD HAUGHTON, M.D., read an interesting paper on

Hot-air Baths,

of which the following is an abstract:—

The baths specially alluded to were the Spartan, Roman, Turkish, and native Irish; each of which

is distinct from the other; but all agree in placing the *summum-bonum* of bathing in the production of free perspiration as the real cleansing agent; whilst ablution (whether in hot or cold water), is merely accessory, and incapable of removing any but superficial impurities. A marked distinction was drawn between vapour baths, properly so called, and the Oriental Hammam, in which latter the presence of vapour is rather tolerated than purposely induced. The objections to which warm water bathing is liable were applied to steam baths, although in a less degree; they consist chiefly in the fact of these mediums parting with their heat suddenly, and being thus liable to raise injuriously the temperature of the body, whilst cooling by evaporation is totally prevented, and cutaneous action seriously interfered with. Objections against hot-air baths, on the score of climate, were combatted by showing that such baths are not only now in operation in this island, but are of great antiquity, having been introduced into France and England by the Romans; and remains of the buildings erected by these conquerors still existing in various parts of the country. The climates where this bath is used are of every possible variety—that of Constantinople itself being very ill adapted for a bath which would predispose to taking cold. The time occupied in taking a Turkish bath was shown to be owing to taste rather than necessity, as the essential processes may be gone through in as short a time as any other warm bath. Diagrams were exhibited showing the outer and part of the hot chamber of a "Hammam," as also a section of a Roman bath, taken from a fresco of the baths of Titus. A drawing of the native Irish sweating house (so much used in the Rathlin Island) was also of much interest, as its principal was shown to be analogous to that used by the Spartans, whose great physical prowess and power of enduring hardships is so much dwelt upon by all writers of Grecian history. The drawings of the Turkish bath were taken from two different buildings, one of which was altogether for females; and in both we observed that every individual was clothed. This very proper regulation appears to us to confer a dignity upon this institution, which is altogether wanting in our own public baths, nor does it at all impair the efficiency of the sudorific process, or interfere with subsequent ablution. Interesting facts recorded in the works of Drs. Watson and Erasmus Wilson were alluded to by the speaker in proof of the innocuous nature of a heated atmosphere, when compared with any other medium whatever. The reason why we take cold seems to be but imperfectly understood, people confounding the heat gained by violent exercise, and attended with expenditure of nervous power, with that which is communicated to us from without, and which is a disposable *surplus*, over and above what we could have parted with, *previous* to being heated. That this is the case, Dr. Haughton maintained both on the ground of *a priori* reasoning, and as the direct

result of experiment, which tended to show that persons in the habit of warm bathing are far less liable to take cold than those who are not accustomed to it. The vicarious power of the skin with respect to other organs having been alluded to, it was next shown that it is capable of absorbing gases, and that it is probable a good deal of oxygen is obtained from the atmosphere in this way, in persons whose skin is perfectly free from accumulations of cuticle or other impervious matter. This fact is of especial importance where the lungs are incapable of making those deep inspirations which are so essential to the health. The want of oxygen in the system was proved to give rise to the production of unorganizable deposits; and the superiority of cod-liver oil over most other oleaginous articles of diet was ascribed in part to its being rich in oxygen, as well as having little tendency to occasion intestinal irritation. Without advocating the hot-air bath as a panacea, Dr. Haughton maintained that it was capable of a wide range of application to the cure of disease, especially some disorders in which the blood was overloaded with noxious or superabundant substances. He stated that persons whose skin was in a proper condition, could swallow with impunity a greater quantity of any poisonous substance than could be taken by those unaccustomed to perspire freely, and that not only are Turks more abstinent than we are in the consumption of intoxicating liquors, but when they do transgress the law of Mahomet, they can dispose of a quantity of ardent spirits surprising in persons not habituated to their use. The objection which is thoughtlessly urged against warm bathing, of the insalubrity of certain trades which necessitate long continued exposure to high temperatures, is evidently absurd,—for it is in the very nature of a remedy to act injuriously when its application is excessive; and, although this may be a reason for requiring a competent person to superintend its administration, yet it cannot have any force as an objection, which does not apply equally to every other remedy with which we are acquainted. Having referred to the coincidence of certain forms of disease with habitual neglect of bathing, and showing the immunity from them which prevails in countries where the bath is frequented, Dr. Haughton concluded by expressing his belief that there is no class of society which would not be benefited by the introduction of an institution which is venerable from its antiquity, and calculated to diminish many social evils if judiciously adapted to the habits of the people.

THE CITY HOSPITALS.—From the annual report just published, it appears that the following were the numbers of patients at St. Bartholomew's and St. Thomas's Hospitals last year.

	St. Bartholomew's.	St. Thomas's.
In-patients ..	5,839	4,507
Out-patients ...	88,889	36,354
Died ...	577	360
In-patients remaining	579	457
Out-patients ..	3,540	2,413

ON THE ORIGIN AND FORMATION OF TUBERCLES IN THE LUNGS.

By J. L. C. SCHROEDER VAN DER KOLK.

Translated from the Dutch by

WILLIAM DANIEL MOORE, A.B., M.B., T.C.D.,

Honorary Member of the Swedish Society of Physicians, and of the Norwegian Medical Society.

(Concluded from page 108.)

From all that precedes, it has, I think, been satisfactorily shown, that the formation, existence, and nature of tubercle cannot be explained by any supposed blood-crisis, and that the assumption of the latter is not necessary, inasmuch as the formation of tubercles, and their variety, can in a simple and natural way be explained from the peculiar qualities of the tissue in which the exuded matter is deposited.

But it will be asked, how shall we then, without assuming a special crisis, explain the hereditary nature of consumption of the lungs?

Without wishing to enter on the difficulties of a subject which is not yet clearly explicable, and the discussion of which would soon exceed the limits of this essay, I must observe, that I by no means understand how the hereditariness of pulmonary consumption is to be explained by a supposed blood-crisis. If the hereditary predisposition come from the father's side, the transference of this morbid matter or perverted admixture to the ovum is still more difficult. This crisis must, in that case, exist before there is blood; it must, notwithstanding the nourishment derived from the mother, and further growth, slumber in the fluids of the fœtus until birth, and, without producing any phenomenon, lie dormant, concealed, and latent, often to the sixteenth and seventeenth year of life, and even later. How, in so long-continued and incessant a metamorphosis of matter in the blood, can a morbid crisis be imagined, which, notwithstanding, remains so long concealed, without in any way giving an indication of its presence, until by the formation of some few tubercles, in the commencement of the disease, it manifests itself. But why not then simultaneously through the whole body, as it has already so long flowed, concealed in the blood, through the system?

We cannot even guess at the cause why the son resembles the father, nor will we assume a crisis, or peculiar condition of the blood, to explain why the son's nose is like in shape to that of the father; but yet we must acknowledge, that in the growth and formation of the solid parts of the body, and especially of the nervous system, resemblance to the parents manifests itself in a greater or less degree. We know that the composition of the blood is no fixed quantity, but depends entirely on the manner in which this fluid is prepared from the various articles of nourishment by the different organs which serve for making and purifying it, and that it must vary very much, according to their greater or less development and action. We may assume, that as the less favourable formation of the body, and the peculiar flatness of the chest in the parents, gave occasion or contributed to the origin of consumption, a similar formation of the system shall produce the same results in the children. Thus we have at least a visible and long-recognized cause, in the phthisical habit, why, in case,

* I need scarcely state, that in denying an original blood-crisis to be the cause of the variety and formation of tubercles, I by no means assert that in a phthisical patient the blood is healthy, any more than in peripneumonia and other diseases. But this alteration in the blood I regard rather as secondary, without, however, meaning to say that these changes in the blood, from whatever cause they arise, may not, in their turn, give occasion to other diseases.

in the rapid growth of the body in the sixteenth or seventeenth year, a disproportionate development of the lungs takes place, this may lead to exudation and the formation of tubercles, especially as just at this time of life, when the voice is changing, the air-passages take on a greater activity, and become more developed in circumference, and are consequently rendered more liable to irritation and to active congestion or inflammation.

It has appeared to me to be established by numerous instances, that in very many families phthisis and insanity both occur; so that some children by hereditary tendency become insane, while others of the same family are affected with phthisis. Shall we, therefore, in some individuals, brought up under like circumstances, assume a blood-crisis for consumption, and then explain the hereditary tendency to insanity in the other brothers and sisters from the constitution? In these latter we certainly will not take refuge in any blood-crisis.

I have, on a former occasion, directed attention to the influence of the nervous system, especially of the ganglia, on the origin of peripheric inflammation, and on this subject quoted the experiments of Dr. Schiff, who saw tubercles form in the upper lobe of the lung, after wounding the ganglion of the nervus vagus of the same side,* whereby, perhaps, the frequent concurrence of pulmonary consumption and insanity in the same family may be explained, as both indicating a congenital predisposition to morbid affections, and sensibility of the nervous system or some of its parts. Thus I also perceived that sufferers, especially from softening of the brain, almost all die of pulmonary disease; that in atrophy of the brain, the same thing takes place; and finally, that in peripneumonia, both in cows and men, the ganglia of the nervus vagus are found red and inflamed.†

I am far from meaning to notice this alone as a constant cause of pulmonary consumption. This disease also follows accidental causes—catarrhal affections of the air-passages, in previously strong constitutions, where both hereditariness and predisposition in the structure of the body are completely wanting, and where we consequently cannot assume the existence of dyscrasia. It hence appears that the last is not necessary to the explanation of this disease.

Many years ago I represented pulmonary tubercles as the result of a local exudation of plastic lymph, and inflammation, the first commencement of which is to be sought, not in phthisical patients, but in the bodies of those who have died of other diseases, who possessed more or less tendency to this affection, and in whom only a few tubercles were met with in the most superior portions of the lungs.‡

Since this time, however, the idea of inflammation was rejected by most pathological anatomists, but has been subsequently again maintained by Reinhardt, who especially insists on the conformity of tubercles§ with lobar pneumonia and exudation in consequence of inflammation.|| He, however, looks upon the yellow pulmonary tubercle as a lobule infiltrated with pus, and the pus-corpuscles or the exudation cells as its morphological basis;¶ and in this differs from Virchow, who, in my opinion, correctly regards tubercles as the result of the liberated endogenous nuclei of enlarged pul-

monary epithelium, which quite coincides with my view.*

Whether now this first effusion into the pulmonary vesicles of albuminous serum or plastic lymph, perhaps mixed with more or less fibrin, be the consequence of inflammation, I will, in the still in some measure undefined state of this term, not maintain. It is enough that there is in this case an exalted action, and inflammation, if it may not be assumed as entirely local at the first growth of tubercles, does not continue on their further extension and increase.† In the slow progress and tedious duration of tubercles, however, the vessels in the walls of the pulmonary vesicles, as is well known, become densely compressed; the epithelial cells, by their increase and growth, fill the pulmonary vesicles and the entire infundibulum, into which the bronchial ramifications, after their entrance into the lobules, expand; through want of circulation in the walls of the pulmonary vesicles, the local exudation within the pulmonary vesicle ceases, the mass becomes more solid from loss of fluid and from pressure, and can no longer be discharged from the wider space of the infundibula through the narrow tubes of the bronchial ramifications, until, by fatty metamorphoses, the matter becomes again more fluid and more purulent, and after the destruction of the walls of the pulmonary vesicles is expectorated with the elastic fibres which previously ramified through the same.

In pneumonia and hepatization the course is more acute. In this case, according to the results of my investigations, the bloodvessels are not so rapidly closed; the contents become more fluid, and are discharged by coughing, without destruction of the pulmonary tissue; if the hepatization has, however, passed into a more advanced stage, and especially into that of grey hepatization, the vessels also disappear from the pulmonary vesicles, and only larger branches ramify around the lobules, of which I possess a very beautiful series of minutely-injected microscopic preparations.

EXPLANATION OF THE PLATE.‡

(All the Figures, with the exception of Fig. XI., which represents the natural size, are magnified 420 times.)

FIG. I.—Portion of a healthy pulmonary vesicle, the walls of which are covered with epithelial cells.

a a, Border of the pulmonary vesicle, with numerous elastic fibres interspersed.

b b, Torn-off edge of the membrane lining the pulmonary vesicle internally, and on which the epithelial cells are situated.

c d, The inferior or external membrane of the pulmonary vesicle, from which the other is torn off at the edge, showing that the wall of the pulmonary vesicle consists of two membranes. At d we see some elastic fibres torn loose.

e, Elastic fibres, extending through the wall of the vesicle between the two membranes.

* *Deutsche Klinik*, 1850, No. 15, p. 168; and in *Verhandl. der physik.-medic. Gesellschaft in Würzburg*, 1851, 2 B. p. 70, &c.

† I willingly assent to the opinion expressed by Schrant, who assumes that tubercle may arise without inflammation out of the nutritive fluid pervading the organs in the healthy state. See *Prijzverhandeling, &c.*, (part 1, p. 59); but, then, I do not see wherefore a crisis is necessary, as the tubercle first acquires its character from the change of the epithelial cells. Schrant, however, equally admits that tubercle may be the result of inflammation; l. c., p. 60.

‡ The beautifully executed plate which accompanies the present number, has been engraved and printed in Holland expressly for this journal, under the immediate superintendence of the distinguished author of the paper it illustrates.

* Schiff, on the change in the lungs after section of the pneumogastric nerves, in Roser and Wunderlich, *Archiv für phys. Heilkunde*, vi. Jahrg., 8 Heft, pp. 679 et seq.

† Case of atrophy of the left hemisphere of the brain, in the *Verhandelingen der 1ste klasse van het Kon. Ned. Inst.*, third series, fifth part, 1852, pp. 36, et seq.

‡ *Observat. Anat. Pathol.* Amst. 1826, p. 63, et seq.

§ Reinhardt on the correspondence of tubercular depositions with the products of inflammation. Reprinted from the *Annalen des Charité-Krankenhauses*.

|| Loc. cit. p. 368 et seq.

¶ Loc. cit. p. 372.

Fig. I

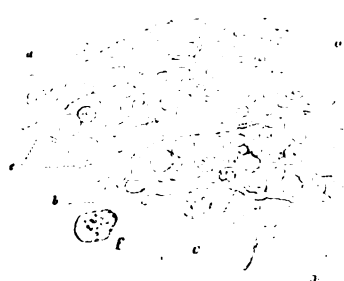


Fig. II



Fig. V



Fig. III

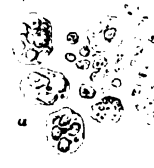


Fig. IV

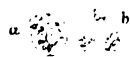


Fig. III



Fig. IX



Fig. X

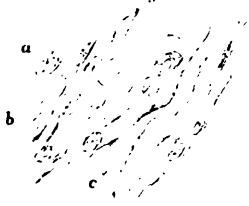
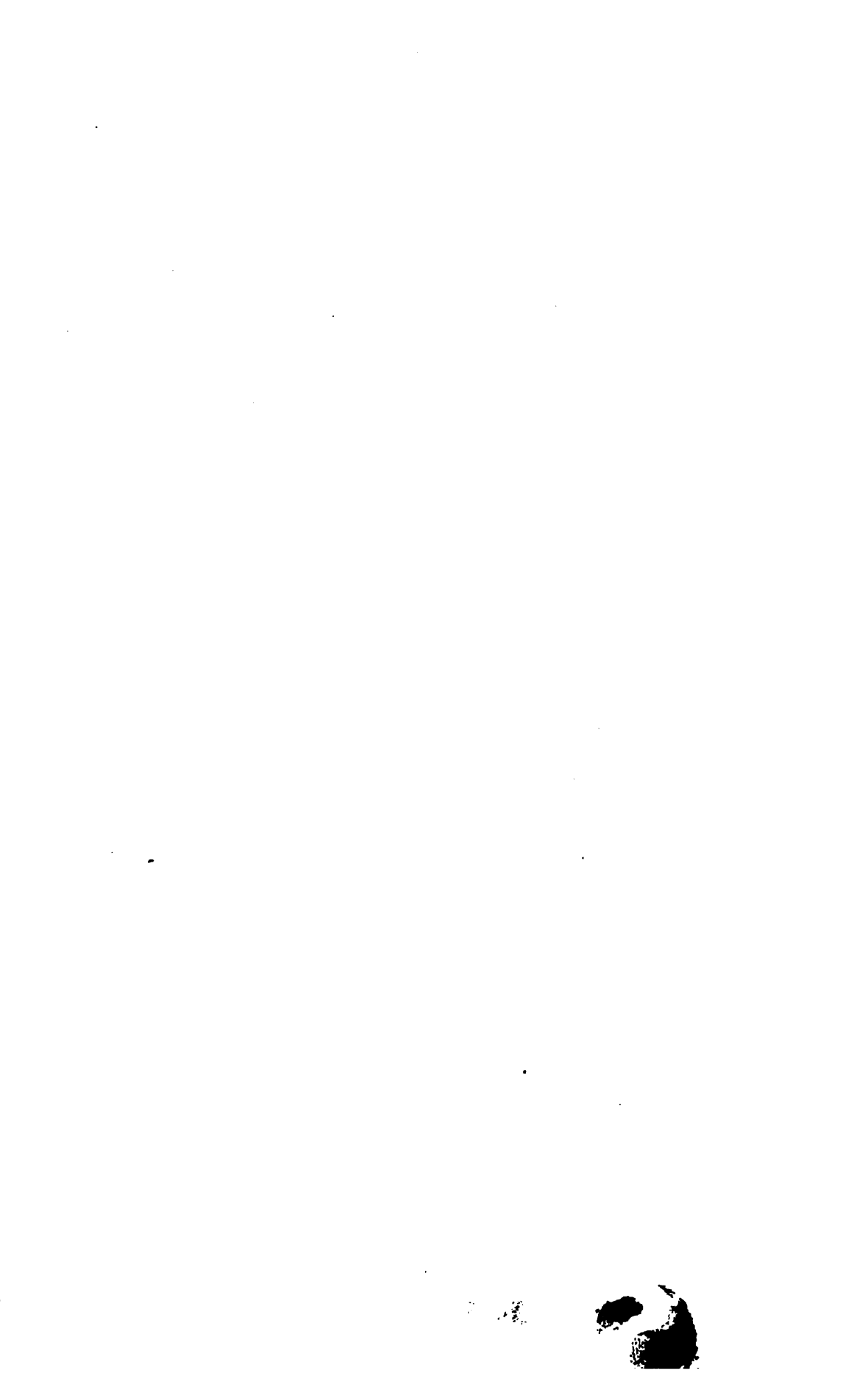


Fig. XI





f, Enlarged and swollen epithelial cell, filled with nuclei, fat globules, and granular matter, as such cells occasionally occur in healthy lungs.

FIG. II.—Two portions of pulmonary vesicles from a tubercle of the lungs, still in the stage of development.

a a a, Smaller pulmonary vesicle, the greater half of which is represented; the tubercular cells are here, for the most part, removed.

b b b, Adjoining portion of a pulmonary vesicle, filled with more numerous and larger tubercular cells, from which, however, in consequence of the thinness of the section, the ground is cut away.

c, Portion of the edge of a third pulmonary vesicle, wholly deprived of tubercular cells.

d, Portion of the still uninjured wall of the pulmonary vesicle *a a a*, covered with epithelial cells, free nuclei, granular matter, and some fat globules, in which, also, elastic fibres are visible. On one side are seen darker, more and more tumefied epithelial cells, with which the edge *a a a*, also is covered.

e e, Larger tumefied epithelial cells, which had completely filled the pulmonary vesicle. At *e e* we see some of the largest cells, in which various nuclei are present.

f, Filaments which sometimes exhibit themselves between the tumefied epithelial cells, formed from the intercellular fluid; commencing connective tissue.

FIG. III.—Cells from a further developed tubercle.

a, Larger parent cells, full of nuclei; mature epithelial cells, corresponding to the larger ones in the former figure at *e e*.

b b, The nuclei of these cells, set free after the destruction of the parent cell. At *b* we see that a nucleus is present in some.

FIG. IV.—Cells from the sputa of a phthisical patient.

a, Larger parent cell, with many fat globules and granulations, together with a nucleus, such as occur also in the tubercular matter, Fig. III., *b b*.

b, Sputum globules, with nuclei and granular matter, the macerated corpuscles or nuclei of the preceding Figure III., *b b*.

FIG. V.—Portion of a pulmonary vesicle from a lung with red hepatization after peripneumonia.

a a a, Wall of the vesicle, covered with tumefied epithelial cells.

b b b b, Blood-discs present between the cells. In the cavity of the cell we see again epithelial cells and elastic fibres, together with darker swollen epithelial cells, some of which are of a larger size.

c, Larger epithelial cell, filled with many nuclei.

FIG. VI.—Pulmonary vesicle of a child which never breathed.

a a a, Circumference of the vesicle, covered with cells. In the centre, on the ground of the vesicle, we see also translucent flat epithelial cells and elastic fibres, some darker from tumefaction, and set free with nuclei and granular matter, just as in the two preceding figures.

FIG. VII.—Portion of the interlobular or interstitial cellular tissue in incipient tubercle.

a a, Connective tissue between the pulmonary lobules, in which are long cells.

b b, Small portion of the adjoining pulmonary vesicle, the capillary vessels of which are filled with injection.

c, Oval cell. The nucleus fills nearly the entire cell.

d, Oval cell, where the cell membrane is beginning to extend itself.

e, Elongated cell, with nucleus, such as here occur in considerable number.

f, Small epithelial cells, covering the bloodvessels and the intermeshes between the bloodvessels of the pulmonary vesicle.

FIG. VIII.—Interstitial tubercle, already in an advanced state.

a a, Connective tissue and elongated cells, constituting the greater part of the mass.

b, Pigment cells, which are also elongated, and occur between the other cells.

c d e, Vessel, probably a lymphatic, completely filled with cells, running through the interlobular tissue, and at *d* and *e* giving off two branches.

f f, Rows of cells situated between the long cells of the interlobular matter.

FIG. IX.—Interstitial tissue between the lobules, in hepatization of the lungs.

a a, Oval cells with nuclei between the connective tissue, in some measure arranged in rows.

b, Long cells, with nuclei.

FIG. X.—Tissue from a tubercle on the peritoneum.

a, Oval cells, with nuclei and granular matter.

b, Long cells, with nuclei.

c, A cell which occasionally occurs, dividing into three points; on the other side connective tissue, with intervening nuclei.

FIG. XI.—*a a a a*, Portion of the surface of a lung, presenting a tubercle which has undergone calcareous change.

b, A lymphatic filled with quicksilver, proceeding to and penetrating the tubercle *c*, which is surrounded with pigment. In the centre the white calcareous portion is seen; between the trunk of the lymphatic and *c*, a little loop, made by the vessel at its entrance, is visible.

d, Three smaller lymphatics, injected with quicksilver, apparently emerging from the tubercle.

e, A fourth and slighter branch of the lymphatic proceeding from the tubercle, filled with quicksilver for a short distance only.

f, Larger trunk of a lymphatic, in which the branches, *d*, partially re-unite.

Reviews.

On the Painless Extirpation of Cancerous Growths by Congelation and Caustic. By JAMES ARNOTT, M.D., late Superintendent of the Medical Establishment at St. Helena. Churchill: London.

The above will be found not an uninteresting monograph to the Surgeon, as it will remind him of the unfavourable results in too many instances of his operations, whether by excision or by caustic, on "Cancerous Growths." Prolonged congelation *alone* appears to have been successful in the hands of our author, as a destructive agent in those affections, and conjointly with caustic it may be still more efficient; but we must wait to learn the result of the two cases detailed, before we can form any opinion on the matter. Indeed we acknowledge we have our doubts respecting it. Congelation has not been very successful with us, as a local anæsthetic, where deep structures were the seat of operation by the knife; and we question, moreover, the satisfactory action of caustic application to "congealed parts."

To mollify the effects of these caustics by any local expedient is a great desideratum, particularly when we find, that notwithstanding the agony produced by their use, such is the relief obtained from even the temporary immunity from disease which they confer, that patients are found willing to submit to their operation over and over again. We have seen a lady who underwent Dr. Fell's treatment, under his own hands, for ulcerated cancer of the breast. She consulted us lately, when it was obvious that the disease was again growing up in the vi-

cinity of the cicatrix; yet this lady expressed herself so relieved by a temporary immunity from disease, that she left for London, to again place herself under Dr. Fell.

The following extract will give the particulars of the mode of treatment adopted by our author, and the advantages he attaches to it; and we doubt not but a perusal of this monograph will much interest the reader.

"If a morbid growth is kept in a congealed or frozen state for a very long period, by means of a powerful frigorific mixture, it is disorganized or destroyed; and if caustic be applied at the same time, or immediately afterwards, this disorganization is quickened, increased, or completed.

"The destruction of texture can be limited or controlled with the greatest accuracy, by confining the freezing mixture and the caustic to the part by a broad flat ring or cup made of gutta percha, fitted to its surface, and firmly pressed upon or adhering to it.

"There is no pain produced by this process of destruction, because the part has been previously completely benumbed by cold; no inflammation follows it, because intense cold is the most powerful preventive of inflammation which we possess; and there is a much greater chance of permanent cure, because, from the strength not being reduced by pain or narcotic drugs, the conservative powers of nature are more capable of resisting the tendency to relapse."

The Geologist: a Popular Magazine of Geology. London: Simpkin and Marshall. Kenilworth: Walter T. Parsons.

We have read with much pleasure the first and second numbers of this magazine, which contain some very interesting papers. Those on the geology of special districts, as the communication by the Rev. Mr. Brodie on Gloucestershire, appear to us likely to prove of most utility, and will, we hope, be followed by many more of like character. It is extremely difficult in any journal of a scientific character to write merely in an elementary style, and perhaps not always judicious, for if the paper thus written be of interest to a junior student, it can scarcely be so to one who has passed beyond his embryo state and looks for a fuller amount of knowledge; but such papers as Mr. Brodie's, and one by Dr. G. P. Bevan on the geology of the Beaufort and Ebbw Vale District of South Wales, will amply supply this want. We would also direct attention to Dr. Philipson's interesting "Foreign Correspondence." The deficiency, now supplied, of a popular geological journal, has been long felt, and we have every hope that it will prove successful, of which there can be no doubt if it is only continued with the same spirit and energy with which it has been commenced.

Selections from British & Foreign Journals.

ON URETHRAL INTERMITTENT FEVER.

By M. CHASSAIGNAC.

This is the name M. de Chassaingnac attaches to the febrile attack which all surgeons have observed as a consequence of catheterism, and which, if it were desired to indicate the cause giving rise to it, might be termed cathetric fever. It is a curious point to determine, whether the contact of the instrument with the entire length of the urethra is necessary for the production of the paroxysmal attacks, or whether it is sufficient for one portion of the canal to have undergone such contact, and in that case, which portion. Judging from the facts known to him before the case which gave rise to these observations came under his notice, M. Chassaingnac was disposed to believe that neither the

membranous nor the prostatic portion of the urethra was the portion in question. Thus he never met with an instance of such febrile paroxysm being produced after catheterism in the female, nor is he aware of any one who has ever met with one. A natural inference would be that it is not observed in woman, because the paroxysm arises from the contact of the instrument with a portion of the urethra which does not exist in her. An opportunity offered itself for confirming this conjecture, by the counter-proof of the induction of the paroxysm by the exclusive catheterism of the portion of the urethra which is proper to man. This occurred in the case of a patient suffering from multiple urinary fistulae. The catheter being passed from one of these to the meatus, and back again from the meatus into the fistula, no difficulty or pain occurring, an intense intermitting paroxysm was produced. The patient had had the catheter passed before, and had borne one fixed in the urethra without such effects having been produced. It was quite certain that on this occasion the instrument had not come in contact with either the membranous or prostatic portion of the urethra, or with the neck of the bladder; and until farther information upon the subject, M. Chassaingnac feels justified in localizing in the bulbous or anterior portion of the urethra the physiologic-pathological process which gives rise to the production of the paroxysm in these cases.—*Moniteur des Hôpitaux*, 1857, and *British and Foreign Medico-Chirurgical Review*.

ON BENDING AND PARTIAL FRACTURES OF THE LONG BONES.

By Professor HAMILTON.

This paper is founded upon certain experiments performed by Professor Hamilton upon the legs of chickens, and references to cases that have occurred in his practice.

1. *Bending of the Long Bones.* This is considered first in relation to the immediate and spontaneous return of the bone to its original form. The possibility of the occurrence is amply demonstrated by the experiments, in which the bones were bent to an angle of 25°, and immediately resumed the straight position; dissection, made a few days afterwards, exhibiting no traces of injury having been done to the bone. The author therefore infers the possibility of this occurrence taking place in the long bones of an infant. Secondly, with the exception of some few cases in which, while one of the bones of the forearm has been broken and the other only bent, Dr. Hamilton is not aware of any instances of permanent bending of the long bones. None of the cases so reported by authors have been verified by dissection, and he believes, with Gibson, that they are really examples of partial fracture. None of his experiments furnished any such results. Of course no one denies that permanent indentation of the flat bones may take place.

2. *Partial Fractures.* These are considered under the same divisions: First, with immediate restoration of the bone to its original form. Although the existence of this form seems to have been occasionally recognised, it has not excited any special attention. The few cases that have been met with in Professor Hamilton's practice have occurred in the clavicle. Of 72 fractures of this bone 17 were partial, and of these 4 were immediately followed by spontaneous restoration of form. Of 5 partial fractures produced in chickens, it was observed in 1. In the cases of fracture of the clavicle, the force has operated indirectly on the bone from the shoulder. A hard node-like swelling is observed at about the middle of the clavicle, unaccompanied by movement or crepitus, with the skin only slightly or not at all tender, and the axis of the bone being unchanged in direction. The second form, without immediate and spontaneous restoration of form, comprises the great bulk of cases

of partial fracture. It probably differs from the other variety in the extent of the bony lesion, and in the peculiar form and degree of denticulation at the seat of fracture preventing the restoration of the form of the bone. The author has observed it in 13 of 72 cases of fracture of the clavicle, and in 12 of 188 cases of fracture of the radius and ulna. He has met with it in no other bones, although other authors have described it occurring in other long bones. He describes the appearances on dissection of the legs of some chickens which had been partially fractured a few days. Prior to dissection the limb still seemed bent, but this was found to arise from the subcutaneous effusion of lymph on the side which had been broken. Beneath the periosteum, too, there was a loose, thin, honeycomb deposit of ensheathing callus, which surrounded the bone in three-fourths of its circumference, being wanting exactly along the line of fracture, the seat of which was thus indicated by an oblique groove. Dissections in the human subject have also been made by Glaser, Camper, Bonn, and Campaignac. The diagnosis is not difficult, the distortion indicating fracture, while the absence of crepitus and mobility, and the mode of production, points to its partial character. No great anxiety need be entertained if the bone cannot be completely straightened, the natural form usually being restored after the lapse of a few weeks or months. "The gradual restoration of these bones is due to the same circumstance which produces at other times an immediate restoration—viz., the elasticity of the unbroken fibres; but which elasticity, in this latter instance, is, for a time, effectually resisted by the bracing of the broken fibres. At length, however, in consequence of the gradual absorption of the broken ends, this resistance is removed, and the bone becomes straight. If this absorption does not take place, and the fibres continue pressed forcibly against each other, as in the case described by Campaignac, the bone remains permanently bent."

3. *Fissures*.—In this section the author relates an interesting example of fissure occurring in the scapula, and refers to the fissures of various bones, as described by other authors; but this part of his essay does not call for further notice.—*New York Journal, and Brit. and Foreign Med.-Chir. Review.*

ON THE TRANSCURRENT APPLICATION OF THE ACTUAL CAUTERY IN WHITE SWELLING.

By M. NOTTA.

Upon the propriety of employing the actual cautery in the treatment of white swelling, a procedure revived by Pouteau, Larrey, and Percy, great discrepancy of opinion prevails amongst the best Parisian practitioners. Thus, while MM. Nélaton, Guersant, and Bonnet resort to the actual cautery and other revulsive remedies, MM. Malgaigne, Chassaignac, and R. Marjolin entirely reject this means, and MM. Sédillot and Bouvier only cauterize the epidermis in the slightest possible degree. During the author's *internat* he had been struck with the fact that the only cures which took place were due to the actual or potential cautery; and since he has been surgeon to the hospital at Lisieux he has continued to derive advantage from this revulsive treatment, and especially the form of it known as transcurrent cauterization.

The disease may be considered under three stages. First, there is an inflammatory condition of one or more of the elements constituting the articulation, an inflammation that may be either simple or rheumatic, spontaneous or traumatic. The second stage is termed by Chassaignac the transition period of the disease: the white swelling is forming, and, under the influence of diathesis, the articular affection takes on a chronic form; the soft parts become engorged, and the ends of the bones enlarged, but there is as yet no articular displacement. In the third stage the white swelling is formed,

and the softened ligaments have allowed of displacement of the surfaces, which have also become eroded and crepitant. Abscesses and sinuses form, and the general health completely gives way. Various degrees of this stage may be present, but the same treatment is applicable to all of these. For the treatment of the first stage all practitioners agree in prescribing antiphlogistics and repose; and it is still to the same measures we must have at first recourse in the second stage, conjoining with them the treatment appropriate for the diathesis itself. But if antiphlogistics do not soon arrest the progress of the disease, douches, iodine frictions, compression, &c., must be employed—a series of measures which, if sometimes of use, are too often inefficacious, and compel resort to be had to large flying blisters, covering the whole joint, and which, dressed with mercurial ointment, may require to be repeated from ten to fifteen times in succession. If these means fail, whether from want of due perseverance in their application or from their insufficiency, more powerful revulsives must be employed, principal among which is transcurrent cauterization, as devised by M. Bonnet and employed by M. Nélaton.

A hatchet-shaped iron is employed, having its edge blunt and its back very thick, so as to retain much caloric. Heated to whiteness, this is passed over the entire articulation, by tracing with it parallel lines which are from twenty to twenty-five millimetres distance from each other. The iron should be passed slowly three or four times in the same day, taking care not to lean too heavily, so that the skin may not be divided, while as much caloric penetrates as possible. Several irons should be in readiness, so that the operation may be performed as readily as possible. Chloroform should be first administered; or if the patient objects to this, a frigorific mixture should be employed, the iron, in this last case, requiring to be somewhat more weightily applied. When the application is finished, the joint becomes red, swollen, hot, and painful; and it is to be covered with compresses dipped in very cold water, and which, renewed every few minutes, are to be continued as long as the severe burning sensation continues. At the end of a period varying from five to twelve hours the pain is assuaged, and for the compresses may be substituted cold lined poultices, which are to be changed every two or three hours during the first day, and three times a day subsequently. The eschars enlarge, and in from seven to twelve days become detached; and as the epidermis covering the portions of skin comprised between the rays often become raised, the whole surface of the joint, after the detachment of the eschars, is in a state of suppuration. The cataplasms can now no longer be borne, and must be exchanged for cerated dressings. The period required for cicatrization varies from two or three weeks to several months. With the local treatment should be conjoined an internal treatment by means of cod-liver oil, iron, iodine, &c., according to the exigencies of the case.

M. Notta gives the details of nine cases which have been thus treated under his care, all being undoubted examples of white swelling, of a duration varying from two months to several years. The duration of the treatment varied from four and a half months to nine months, and its results were the restoration of the movements of the limbs in two cases, and cure by ankylosis in seven.—*Archives Générales, and Brit. and Foreign Med.-Chir. Review.*

MEDICAL RELIEF IN PARIS.

M. Blondel, inspector of public aid (*inspecteur de l'assistance publique*) in Paris, has recently published, in the *Annales de Médecine légale*, a statistical notice of the hospitals and hospices of the French capital. There are sixteen hospitals, containing above seven thousand beds; eleven hospices, with accommodation for more than ten

thousand infirm and insane persons, children, idiots, orphans, &c.; five establishments for the provision of necessaries—such as bread, meat, wine, drugs, clothing materials; also a general establishment for provisions; and one for placing children at nurse. The seven thousand inmates of the hospitals are each visited professionally twice daily; and a written entry is each day made of the changes which may have taken place, and of the food and medicine consumed. The sixteen hospitals employ sixty-seven physicians, thirty-eight surgeons, fifteen compounders of medicines, one hundred and seventy-nine *internes*, a greater but variable number of *externes*, seven hundred and seventy-four sisters of charity and superintendent and assistant nurses, four hundred and eighty-nine persons employed in the household service, and twenty-two chaplains. The *hospices* receive the infirm and aged; two of them have each a special department for the insane. The ordinary population of these institutions (eleven in number) is ten thousand, consisting of five thousand aged and infirm females, three thousand aged and infirm males, and two thousand insane of both sexes. There are employed in them eighteen physicians, three surgeons, three compounders of drugs, twenty-nine *internes*, a number of *externes*, seven hundred and four nurses, thirty-eight chaplains, and four hundred and thirty general servants. The annual expenses of the hospitals and *hospices* amount to eleven and a half million *francs* (£460,000). Seventeen thousand orphans or deserted children are also provided for, instructed, and placed in situations, at an annual public expense of two million three hundred thousand *francs* (£92,000). Domiciliary aid is given to seventy thousand persons, under the direction of one hundred and forty-four administrators, a larger number of *commissaires*, one hundred and forty-seven sisters of charity, one hundred and fifty-nine physicians, and sixty *employes* of various grades; the annual expenses being three million seven hundred thousand *francs* (£148,000). The expenses of the administration of public aid amounted, in 1856, to fifteen million six hundred thousand *francs* (£624,000).—*British Medical Journal*.

Obituary.

SIR JAMES M'GRIGOR, Bart., M.D., K.C.B., late Director General of the Army Medical Department, died April 2nd, in the 87th year of his age. Sir James was born at Cromdale Strathpey, Invernesshire, and was educated at Marischal College, Aberdeen, of which college he was elected Rector in 1822, and again in 1823, when he was opposed by Mr. Hume, M.P. Having concluded his course of study at Marischal College, he proceeded to Edinburgh, where he had the advantage of the able tuition of Black, Monro, and Gregory. Sir James held successively in the field and at home the highest offices in the Medical Department. He was chief of the Medical Department during the disastrous Walcheren campaign; after this he was appointed Inspector of Hospitals for Portsmouth, Severn, and the south-west districts. He was then appointed chief of the Medical Department under the Duke of Wellington in the Peninsula, and so ably discharged his duties, that the Duke wrote of him: "I consider him one of the most industrious, able, and successful public servants I have ever met with." His long tenure of the office of Director-General must be fresh in the recollection of our readers. His scientific productions are not numerous; being chiefly "Medical Sketches of the Expeditions to Egypt and India," and some observations on "Fever." Sir James gained the esteem and affection of all the members of the Service whilst he presided over the Medical Department, as was evinced by the collection of subscriptions to the amount of 1,000*l.* for a service of plate and a portrait of him, which was presented to Lady M'Grigor. For some years before his decease he

lived in retirement, and until within a short time maintained an appearance of healthy vigor. We append a summary of the principal events of his life:—Sir James entered the Service in September, 1793, as Surgeon of the 88th Regiment; he served in Holland and Flanders in 1794–5; in the West Indies in 1796; in the East Indies in 1798; in Egypt as Superintending Surgeon of the Anglo-Indian Army in 1801; with the Army at Walcheren in 1809; and in the Peninsula from 1811 to the end of the war. His commissions bear date as follows: Surgeon, September 13, 1793; Deputy Inspector General, June 27, 1805; Inspector General, August 25, 1809; and Director General, June 13, 1815; Sir James, for his services, received the war medal with five clasps, for Egypt, Badajoz, Vittoria, Pyrenees, and Toulouse.

Dr. SCHOFF MERRI has recently died at his residence in Manchester. This amiable physician was a Hungarian refugee, and was formerly the founder and director of the Children's Hospital at Pesth, Professor of the History of Medicine in the University, and editor of the only Hungarian journal. During the civil war he joined the revolutionary party, accompanied them in their campaigns, and rendered them professional assistance during their sufferings. He was a man of high attainments in literature, and, like many of his countrymen, could speak Latin with facility, as well as several modern languages. Whilst at Manchester he established a Children's Hospital, and published a series of Lectures on the Diseases of Children in one of our contemporaries. He was gentlemanly in his deportment, and succeeded in making a large circle of friends. His death was occasioned by encephaloid disease of the liver.

MACRATH, JOSEPH, M.R.C.S., on February 17th, at Kingston, Jamaica, aged 69. The deceased gentleman was for many years Senior Surgeon to the Public Hospital, and President of the College of Physicians and Surgeons, Jamaica.

BAYLE, M. A. L. J., aged 59. M. Bayle commenced his medical career by a brilliant dissertation on primary chronic meningitis, in which he first made known the existence of a disease which is now so prevalent in France, viz., the general paralysis of the insane. He pursued the subject in various other works on mental pathology, and in 1854 received the Academy prize for his essay on the "Organic cause of the General Paralysis of the Insane." He also published the well-known collection of memoirs, the "Bibliothèque de Thérapeutique," and was editor of the influential publication, "Encyclopédie des Sciences Médicales." He was one of the chief contributors to the pages of the "Revue Médicale," and had recently published a summary of his medical doctrines in his "Éléments de Pathologie Médicale."

SEWAC, M. le Dr., Professor of Medical Pathology in, and formerly Director of, the School of Medicine at Lyons, formerly Physician of the Hôtel Dieu, Member and at one time President of the Imperial Society of Medicine, at Lyons, lately.

A BILL has passed through both houses of Parliament, the effect of which will be to free the degrees of the University of Cambridge from the Government stamp duty.

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**A CASE OF ENTERO-VESICAL FISTULA;
WITH OBSERVATIONS.**

By J. T. BANKS,

King's Professor of Physic, and Physician to the Whitworth and Hardwicke Hospitals.

The early history of this case was published in the *Dublin Hospital Gazette* (see Volume III., page 209), but before entering on the continuation it may be briefly summed up.

A discharged soldier, æt. 25, was admitted into the Whitworth Hospital on the 13th October, 1855. He had entered the service in 1848, and was immediately afterwards sent to India. With the exception of syphilis, he did not suffer from any disease during the first two years of his residence in that country; at the end of this period he was attacked by diarrhoea, but continued to do duty for six months; the disease then assuming a dysenteric character, he was received into hospital. From May, 1852, he was, without intermission, an invalid; and when repeated change of air and other treatment had no influence in improving his state, he was sent home, and landed in England in April, 1855. The dysenteric symptoms were rather aggravated than alleviated by the voyage. He was taken into Fort Pitt Hospital, and the second night after his admission he had pain in passing urine, and afterwards retention, which rendered the introduction of an instrument necessary, but which, however, was not productive of permanent relief.

For three or four days the difficulty of micturition continued, and he then perceived fecal matter in the urine, the same in all respects as that which passed from the bowels, there being no difference in the smell, colour, or consistence. He also observed that air passed by the urethra. No obvious alteration occurred in his symptoms from this time until he came into the Whitworth Hospital, on the 13th October, 1855. He was then much emaciated, and presented the appearance of a person who had long resided in a tropical climate, and

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who had been the subject of a wasting disease. The urine came away only "guttatim," and never unimpregnated with fecal matter. The evacuations were numerous and dysenteric, but at times the bowels were costive; even then, however, bloody mucus was present, and at these periods the greatest amount of feces passed by the urethra.

His strength was at a very low ebb, but the appetite was wonderfully good. No treatment which was had recourse to had any permanent effect in arresting the symptoms. He continued nearly in the state detailed until the end of December, passing scarcely more than two or three hours, at any time, without being disturbed by painful and urgent, but often ineffectual, calls to the night-chair. The report of the 16th January describes the state of the patient as in some degree improved. The alvine dejections were not so frequent, and there was also an alteration for the better in their character. For some days the urine is clear, and then there passes a notable amount of feces by the urethra. Frequently an enema, soon after being thrown up into the rectum, is ejected through the urinary passages, and then follow casts of the urethra; but in general the excrement is fluid. Occasionally the penis becomes distended, and much uneasiness is experienced in the effort to expel the substance which bars the passage. From March to August there was no alteration in the state of the patient which claimed any particular notice. He complained of severe pain in the region of the bladder, and pressure above the pubes caused an increase of suffering. The evacuations were frequent, and accompanied with tenesmus; and occasionally he was much distressed by flatulent distension of the bladder. Retention of urine occurs now and then, often arising from the presence of some solid body in the urethra. On one occasion, a piece of yellow elastic ligament, which, doubtless, had been taken in soup, and had found its way from the intestine to the bladder, was arrested in the urethra, and caused much distress. When difficulty exists in the flow of urine through the natural conduit, the fluid passes off by the intestinal canal. A muco-puru-

lent discharge was now established, not merely from the rectum, but from the urethra also.

For many months after the publication of this case, in August, 1856, the disease seemed to make little progress. The patient still retained the power of taking food, which was always of a nutritious character, and he was also allowed to have a liberal supply of wine. On the 1st of February, 1857, he was moved from the Whitworth Hospital to Sir Patrick Dun's. Some days after his admission into hospital he was seized with severe rigors and retention of urine. On examination, it was found that an obstruction existed to the passage of the contents of the bladder by the urethra. The pain felt at the seat of the foreign body was very acute. After many efforts, and with much trouble, a piece of bone presenting many sharp points, was extracted from the urethra.

The quantity of fecal matter passed by the rectum now decreased considerably, and there was a proportionate increase of that voided by the urethra. At length it appeared as if the passage of feces by the rectum had become impossible, for muco-purulent fluid, mixed with blood, and without a trace of true excrement, formed the alvine dejections. There was also marked diminution of strength from day to day, and rigors occasionally: after the lapse of a little time the rigors assumed a degree of regularity, occurring almost always on alternate days. Great distress, and frequency of passing urine, prevailed—a condition which might fairly be termed tenesmus of the bladder. The urine now invariably contained more or less blood. On the 18th of May he was brought back to the Whitworth Hospital. His strength was declining rapidly; so debilitated was he, that he was unable to sit up in bed; and now the rigors came on each evening. The tympanitis and tenesmus of the bladder were most distressing. From the above date to October the course of the disease was steadily downwards, not varied by any symptom which has not been previously noticed. Towards the end of October the urine passed away involuntarily per anum, very little coming by the urethra; and now there was utter failure of appetite, the digestive process being much deranged; acid eructations and flatulent distension of the intestines occasioning an aggravation of the unfortunate man's sufferings. On the 1st of December he vomited a large quantity of grass-green fluid; and at this time bronchitic irritation, which had for some time existed, became frequent, and exceedingly troublesome. His breathing was now laboured, and pleuritic pains were added to the long list of his ailments. The cough interfered much with his rest; and the vomiting, recurring at short intervals, reduced him to the lowest state of debility.

From this period up to the date of his dissolution (February 11th, 1858) a rigor occurred generally at noon daily; the vomiting, and involuntary discharge of urine with blood from the rec-

tum, continued; until he sank under the effects of an accumulation of disease, against which he had so long and painfully struggled.

My friend, Dr. Robert M'Donnell, made the *post-mortem* examination with much care and accuracy, and he has furnished me with the following account of the pathological appearances:—

"The bladder was found so much contracted, that when inflated to the utmost with air, it did not rise above the symphysis of the pubes. The rectum, similarly inflated, was very capacious at its superior and inferior part; the middle portion of the rectum was, however, for some inches, very tortuous, closely bound by old adhesions to the bladder, and contracted to so small a size that a catheter could not be passed through the gut.

"On cutting open the bladder, its mucous coat was found to be much thickened, deeply ulcerated, and in part coated with ash-coloured lymph.

"Immediately behind the trigone an opening existed between the bladder and rectum, through which a large-sized catheter could readily be passed; this opening was between, but posterior to, the mouths of the ureters.

"The inside of the bladder closely resembled a piece of ulcerated intestine; the upper and lower portions of the rectum were also extensively ulcerated.

"Tubercular deposition existed in both lungs. The other organs did not present any morbid change."*

With the result of the examination of the body before us, I have no reason to deviate from the opinion I formed of this case when I published an account of it, under the impression that the man was about to leave the hospital. I then stated that I considered the cause of the bimucous fistula which existed to have been a perforating ulcer of the intestine, the result of chronic dysenteric inflammation. The mucous membrane of the bladder and that of the rectum presented precisely analogous appearances, and such as we are familiar with as the effects of dysentery of old standing. A portion of the interior of the bladder could not be distinguished from the mucous membrane of large intestine presenting the ordinary appearances of chronic dysentery; and in truth the bladder had, in this case, for a considerable time, to all intents and purposes, served the purposes of an intestine, and had undergone changes analogous to those observed in the intestine.

Looking at this case in many points of view, it must be considered one of unusual interest. Its duration is probably the most remarkable circumstance connected with its history. Tracing the disease from its origin in India down to its fatal termination in this country, and bearing in mind the complications which arose, and the severity of their character, we can scarcely imagine an instance in which greater tenacity of life was evinced.

* Communicated to the Pathological Society on Saturday, the 20th of February.

CASE OF PARALYSIS, WITH SOFTENING OF THE BRAIN.

FIBROUS TUMOR OF THE UTERUS.

By PROFESSOR LAW, M.D. T.C.D.

An Englishwoman, 45 years of age, having been in delicate health for a long time, was, in May, 1857, admitted into an hospital in England, for an attack of hemiplegia, and remained there for some time. Under medical treatment she slowly recovered, and at length found herself so far improved, that she engaged to undertake the situation of servant in this country. On her voyage over from Bristol, although the weather was extremely rough, her stomach was not sick, but she had distressing nausea. She left England on a Saturday, and on the following Thursday was proceeding to her situation, on an outside car, when she was suddenly seized with paralysis of the left side, and for the time completely lost the power of articulation. In this state she was carried into Sir Patrick Dun's Hospital, where she was admitted under the care of Dr. Osborne. She had entirely lost the use of both the upper and lower extremities of the affected side; she was unable to explain herself; and even when interrogated, seemed to take some time before she could understand what was said to her. Such was her condition when she came into hospital, on the 30th of January, and she was in such a weak state that she was given wine almost immediately. She soon began to improve, and this improvement progressed slowly, but steadily; indeed she was soon able to move about a little from place to place; she was still, however, in a very weak and depressed condition. Frequently, when spoken to, she burst out crying. The pulse at the wrist was very weak, and the heart's action was correspondingly feeble. Her menstrual discharge was said to be excessive, and when it came on it left her in an extremely weak condition. It usually lasted for four days, and was an actual hæmorrhage, the blood coming away in clots.

She continued to improve day after day, and the period of her catamenia, which she herself dreaded, was fast approaching; she was therefore recommended to remain in bed during that period. In a short time the discharge commenced, and lasted for three days, leaving her, after its cessation, much better (as she stated) than she remembered ever to have been previously. On the second day after it had ceased she got up, and she was walking about, unusually well, when she was suddenly seized with a convulsion. She had just sufficient consciousness left to desire that she should be laid upon her bed, which was at once done. I saw her almost immediately, but she was quite dead, although five minutes had not elapsed from the time of her being seized with the convulsive

attack. She was an unmarried woman. Many of her family had been the subjects of paralysis.

On opening the head, and removing the dura mater, just at the point where this membrane is attached to the crista galli of the ethmoid bone, and forms the anterior extremity of the falx cerebri, there was embedded in the folds of this process a mass of bone, the size of a small walnut, uneven on its surface; and this pressed more on the internal surface of the right than of the left hemisphere of the brain. The arachnoid membrane was very much thickened and opaque, and there was a considerable quantity of gelatinous fluid on its surface. Horizontal sections of the brain exhibited no abnormal appearance, either as to consistency or vascularity, till we came to the right corpus striatum and optic thalamus; both these were in a state of complete deliquescence, retaining, however, their normal colour; all the rest of the organ was healthy. These appearances in this case favoured, to a certain extent, the opinion that would connect the paralysis of the lower extremity with disease of the opposite corpus striatum, and paralysis of the upper extremity with disease of the opposite optic thalamus.

The next point which attracted my attention was the condition of the heart: that organ was extremely soft, fat, flaccid, and flabby.

The connexion between softening of the brain and disease of the vascular system was first brought under notice by Rostan, who ascribed the cerebral ramollissement to a deficient nutrition of the organ, caused by a diseased state of the arteries. The next observation connecting this lesion with the circulation was made in this country, and here it was connected with peculiar organic lesions of the heart, which have the effect of depriving the brain of its due supply of blood—such as aortic or mitral valve disease. The next notice that was taken of this association of disease was by Mr. N. Cheevers, and is, I think, almost conclusive of its nature. He found that softening of the brain occurred frequently where the carotid artery was tied; proving to demonstration, that softening of the brain results from an insufficient supply of blood. I offer, as an explanation of its cause in this instance, the soft, flabby state of the heart. As regards the nature of those peculiar attacks to which persons who suffer from this condition of the brain are liable, I do not believe that the opinion is correct of those authorities who consider that they are of an apoplectic character. They are, in my opinion, more of the nature of syncope.

Several of the internal organs of this woman's body furnished most interesting pathological specimens. The gall-bladder was full of biliary concretions, which, although of no specific interest in the present instance, frequently give rise to very anomalous symptoms. The viscus itself was enormously thickened; the spleen was greatly enlarged.

The condition of the uterus affords a very satisfactory explanation of the excessive catamenial

discharge. This discharge—or hæmorrhage, as it might be called with propriety—was strictly confined to the catamenial period; it never occurred in the intervals. We found the uterus of the size and shape that it usually is at the third or fourth month of pregnancy. Upon making an incision through it, we came upon a fibrous tumor, about the size of a large hen-egg, lying within the cavity of the organ, and another smaller one embedded in the walls near the cervix. Besides the great interest which these tumors possess for the obstetrical physician, there are also points of general pathological interest connected with them.

The fact of the larger morbid growth having been found within the uterus, while the smaller and less abnormal was in the walls of the organ, will tend to prove that the original seat of the former was also the substance of the organ, and that, in the progress of its development, it made its way into the cavity of the uterus, carrying before it the lining membrane of the organ, which forms for it a kind of hood or *cucullus*, with a pedicle by which it retains its connexion with the organ. We presume that an analogy exists between the mode by which these tumors make their way into the cavity of the uterus, and that by which some loose cartilages make their way into joints. It is well known that these latter bodies were originally external to the joints; that they have passed in, carrying with them a fold of membrane enveloping them, and forming a pedicle by which they are attached to the side of the cavity of the joint; that this attachment is broken off, and the cartilage becomes loose in the joint, in some cases retaining its pedicle, and the internal surface of the joint exhibiting a small cicatrix indicating the point of attachment.

CASES ILLUSTRATING THE VALUE OF "KAMEELA" (ROTTLERA TINCTORIA)

IN THE EXPULSION OF TAPE-WORM AND OTHER
PARASITES.

By WILLIAM MOORE, M.B. T.C.D., M.R.I.A.,

Physician to the Institution for Diseases of Children;
Ex-Lecturer on Materia Medica and
Therapeutics, &c., &c.

Before detailing the following cases, in which Kameela was the only anthelmintic exhibited, it might not be out of place to give a brief account of the botanical character of this agent, which has so recently been introduced to the profession in this country.

Kameela is the reddish-brown powder which clothes the capsules of the *rottlera tinctoria*, one of the *euphorbiacæ*. This middle sized, erect, branching tree, named after the Rev. Dr. Rottler, who resided at Tranquabar for many years, in the character of a Danish missionary, is found in the hilly parts of India, along the base of the Himalayas, from Assam to near Peshawur, in central

India, at the northern Circars, in Mysore, and at Parrell Hill, near Bombay; besides in Ceylon, China, Australia, and Arabia. The capsules of the fruit of this tree, which are about the size of a small cherry, are clothed with abundance of deep-red granular powder, easily rubbed off, much esteemed as a dye for silk. When the capsules are ripe, in February or March, they are gathered, and the powder carefully brushed off. Dr. Anderson,* Professor of Chemistry in Glasgow University, who has written on the colouring matter of the *rottlera tinctoria*, found it to possess a substance which he named Rottlerine. It consists of yellow crystals, having the form of minute plates, and a fine satiny lustre; it is insoluble in water, and sparingly soluble in cold alcohol. This brick-red coloured powder has been variously named: Dr. C. A. Gordon, of the 10th Regiment, calls it Kameela; Dr. Giraud, Professor of Materia Medica in Grant's Medical College, Bombay, writing of it, calls it Kameyla; Dr. Anderson, Kamila; and Dr. Mackinnon, Kamala. The Sanskrit word, *Vasan tagandha* (*wassunta gunda*) "spring fragrance," has been applied to it. Mr. Hanbury† states that Kameela resembles lycopodium, in the difficulty with which it is mixed with water, and in the manner in which it ignites when thrown into the air over the flame of a candle. In the year 1856 I first heard of the anthelmintic properties of the Kameela, from Dr. Benjamin Simpson, of the Bengal Army, who spoke most favourably of his experience of it, considering it quite specific for the expulsion of tapeworm. Having failed to obtain it, either here or in London, I procured some of it direct from India. Now it can be obtained at most of the establishments of repute in either metropolis.

The following cases will show the effect of Kameela in the expulsion of tapeworm.

Mrs. M—, aged 28, has been some years married, and has no family; she complained of palpitation, borborygmus, and a constant gnawing sensation in the epigastrium; and occasionally, for the past six years, has been passing small portions of tapeworm. On the 18th February last Dr. Hardy, whose patient she was, prescribed Kameela in 3ss. doses, after which she passed several inches of tapeworm. On the 20th February, Dr. Hardy having mentioned the partial success attendant on the exhibition of 3ss. of the Kameela, we agreed on its being repeated in 3i. doses, and after the second drachm had been taken, she passed a tapeworm one yard and a quarter long. On the 24th, the patient still suspecting the presence of a worm, the powder was repeated in 3i. doses, when, after the third powder, she passed another worm two yards long. Both worms were passed dead. The powder was taken fasting, and repeated after six hours; it caused no further in-

* *Edinburgh New Philosophical Journal*, April, 1855.

† *Pharmaceutical Journal*, Feb. 1858.

convenience than by acting freely on the bowels. This patient stated that she had tried various remedies for the last few years. Turpentine brought away short pieces of worm at first, but afterwards lost its effect. Koossoo she found ineffectual.

The next case (which has been kindly furnished me by Dr. White, Surgeon to the Roundtown Dispensary,) was that of a boy, aged about nine years, who has been troubled with tapeworm for some time, passing small portions from time to time. Turpentine, and purgatives of various kinds, gave him temporary relief, but after a few days portions of the worm reappeared in the stools. Dr. White's report is as follows:—"According to your suggestion, I gave him 'Kameela'—the first dose, gr. xv., at eight o'clock, a.m., on the 19th March last. This purged a couple of times, bringing away enormous quantities of the worm, in small pieces—none more than a few inches in length. Next morning (the 20th), at ten, a.m., the dose was repeated; and this time it also purged freely, carrying away quantities of the segments of the worm, about one inch in length. At four, p.m., on the same day, the boy's parents repeated the dose without my order; but although it moved the bowels freely, not one piece of the worm could be found in the dejections. On inquiry, I find that, since the 20th, not a sign of the worm has been found in the stools, although carefully examined; clearly showing that the entire worm has been expelled."

In cases of *ascaris lumbricoides* and *vermicularis* you will find its action very satisfactory. Where you meet with the latter parasite giving rise to annoyance in young persons and children, by giving "Kameela" in doses of from gr. x. to gr. xx., according to the stamina of your patient, and when this has acted on the bowels, then—provided there are no febrile symptoms present—prescribing syrup of iodide of iron, these intruders will be radically expelled. The following cases will exemplify this treatment:—

In the month of January last, a boy, aged ten years, was brought to the Institution for Diseases of Children. His father stated that he had been troubled with "small white worms" since childhood, for which he had taken all forms of "worm-powders" ineffectually. I gave him gr. xv. of Kameela, to be repeated after six hours, if the first powder did not act. The next day the boy was brought to me. His father stated the powder had acted once freely on his bowels, and brought away about an "egg-cup full" (as he expressed it) of small worms. Thinking that some still remained, he gave a second powder the following morning fasting, but no worms came away: in fact the first dose had effectually cleared the "*prima via*." I gave the lad syrup of iodide of iron. The same treatment was pursued in the case of his younger brother, since which date they have been quite free from these parasites. In such cases the Kameela effectually clears the course of these "in-

truders," and the syrup of iodide of iron prevents their reproduction.

Of the vermifuge properties of this agent, Dr. Giraud, Professor of Materia Medica in Grant's Medical College, Bombay, says:—"It is used for all kinds of worms, but especially tape-worm, for which it is successful after turpentine and koossoo have failed. The dose for an adult is from two to three drachms, which usually purges four or five times, and brings away the worm."

Dr. Anderson,* 43rd Regiment, refers to 95 cases of tapeworm treated with Kameela, in two of which cases only no worm was expelled.

Dr. Charles Alexander Gordon,† 10th Regiment, states:—"With Kameela there is no unpleasant effect. It is not even necessary to take a dose of purging medicine as a preparative; and beyond a trifling amount of nausea and griping, in some instances, no unpleasant effects are experienced; while by far the greater number of persons to whom it is administered suffer no inconvenience whatever beyond what they would from a dose of ordinary purging medicine." Of the tincture he writes:—"Suffice to say, we prepared a spirituous tincture, by adding Oj. of alcohol to ʒiv. of the powder, and then filtering. We never obtained more than ʒvj. in this way, and of this ʒj. in mint-water was found to be a sufficient dose; ʒij. in some cases were required, and in one or two instances ʒiii." In continuation he adds:—"I have never seen the remedy fail in removing the worm, in a case where there were unequivocal symptoms of its presence; for, as you are well aware, many persons insist upon it, that they are suffering from intestinal worms, and yet have no absolute proof of being thus affected."

Dr. C. Mackinnon,‡ Superintending Surgeon, Bengal Presidency, prescribed Kameela to a gunner affected with tapeworm, who had taken turpentine and koossoo without effect. He gave him three drachms for a dose, and this not having acted, he repeated the same quantity after four hours. With the fourth stool he passed a tape-worm six yards long. Dr. Mackinnon has administered it to nearly fifty patients, and in two cases only no worm came away. He says:—"As far as my experience goes, I have found it a better and more certain remedy than either turpentine or koossoo, and much less disagreeable to take than either of these remedies." The following are his conclusions:—"1st, That Kameela is a safe and efficient remedy for tapeworm, and more certain than either turpentine or koossoo. 2ndly, That to a strong European three drachms may safely be given as a dose. 3rdly, That to a person of feeble habit, or to a female, one and a half drachms, followed, if necessary, by half an ounce of castor-oil, is a sufficient dose."

* *Indian Annals of Medical Science*, vol. iii. p. 86.

† *Medical Times and Gazette*, May 2, 1857.

‡ *Indian Annals Med. Science*, 2nd edit. No. 1.

Dr. Leared,* Physician to the Great Northern Hospital, gives the details of a case of tapeworm, in a female, aged 26 years, in which 3*l*. doses of Kameela were successful, after turpentine, pomegranate, and oleum filicis maris had failed. He adds:—"So many approved medicines having been fruitlessly tried, coupled with the success attending the Kameela, make this case of great interest."

In the case of Mrs. M——, the Kameela succeeded when turpentine and koossoo had failed. Almost all the authorities I have cited, speaking relatively of the anthelmintic properties of Kameela and koossoo, give the former the first place. With respect to Kameela, I should say Koossoo stood "proximus huic, longo sed proximus intervallo." Its vermifuge properties are undoubted; but its cumbrous nature, and the uncertainty of its action, rendered it liable to be superseded on the earliest occasion. Kameela has long been used in cutaneous diseases. The Arabs gave it internally in leprosy, and also applied it externally in affections of the skin. In the *Dublin Hospital Gazette*, November 15th, 1857, I published some cases of "Herpes Circinatus," in which the local treatment was Kameela, applied on moistened lint. The water in which the lint is wetted should at least exceed 90° Fhrt., as Kameela is comparatively little affected by cold water.

In conclusion, I have only to add, when the authorities adduced in proof of the effects of this agent are taken into account, coupled with my own experience of it; the absence of any disagreeable taste or smell; its portability; and the simplicity of its physiological action, compared with those vermifuges as yet at our disposal; I feel I can recommend it with confidence to the profession. The dose of the powder may vary, according to the age and calibre of your patient, from 3*j*. to 3*ij*. If necessary, it may be repeated after four or five hours. The dose of the tincture (preferred by Dr. Anderson) is from 3*j*. to 3*ij*.

ON THE IMITATION OF NATURAL SPAS.

By DR. ALDRIDGE.

Having had my attention directed, for a considerable time, to the possibility of exactly imitating the natural spas, and being at length entirely successful in reproducing, by chemical means, some of the most complicated and valuable, I was induced to present some specimens of this new manufacture to the Surgical Society of Ireland, at its sitting of the 10th of April, a report of which appeared in the *Dublin Medical Press*, on the 27th of the same month. Since the publication of that report I have been requested, by several members of the profession, to publish the formula that I have employed in the preparation of these waters,

and a little reflection has determined me to do so; for although a prior claim is due to Messrs. Bewley and Evans, of this city, who have enabled me to carry my researches to a successful issue, and who have made the necessary arrangements for the manufacture of these artificial spas, yet the advantages capable of being derived from their employment may be much extended by enabling other manufacturers to prepare them in an exactly similar manner.

The spas that I have hitherto succeeded in imitating are the Rakoczy and Pandur Brunnens, at Kissingen, and the Elizabethan Brunnen, at Homberg. These are all so similar to each other—only varying in the proportions of their constituents—that it will be only necessary, at present, to give the formula for one of them. The one that I prefer for this purpose is that of the Rakoczy:—

Lime-water, 3 wine pints,
Carbonated Solution of Magnesia, 11 ozs.
Bewley & Evans' Soda Water (No. 4), 12 drs.
Sulphate of Iron, 8 grs.
Sulphate of Manganese, 1 gr.
Phosphate of Soda, 2 grs.
Chloride of Sodium, 1 oz.
Carbonate of Potash, 10 grs.
Muriatic Acid, (1160), 4 drs.
Bicarbonate of Soda, 5 grs.
Silicate of Soda, 30 grs.

Dissolve and filter the solution; divide into twelve equal parts; put each part into a bottle capable of holding a wine-pint; fill up with Bewley and Evans' Soda Water (No. 1), and cork rapidly.

The contents of one of the above bottles, taken in divided portions, about an hour before breakfast, will be found to possess all the physiological effects of the spa drunk at the source. It will be found useful in cases of gout, dyspepsia, epigastric fulness, habitual constipation, neuralgia, obesity, &c. It is well not to continue its use for a longer period than nine days or a fortnight, and to follow the treatment by the exhibition of some mild tonic. Its employment is unsafe when there is weak action of the heart, or where there is a tendency to cerebral congestion, or hæmorrhage from any surface.

Proceedings of Societies.

PATHOLOGICAL SOCIETY OF DUBLIN.

Among the late specimens exhibited at this Society,

DR. CORRIGAN presented a specimen of very extensive *Disease of the Aorta* in a man aged 40, a patient in the Whitworth Hospital. About six or seven years ago he had an attack of rheumatism; his occupation was that of a house servant, which necessarily led him to frequent running up

* *Med. Times and Gazette*, Dec. 19 1857.

and down stairs; however, he was able to continue in the discharge of his duty up to the date of his admission, on the 4th of February. He complained of palpitation of the heart, increased greatly by going up stairs, but of no other symptom, and of this the application of a few leeches was sufficient to relieve him. The case was diagnosed as disease of the aorta, with permanent patency of the valves; a loud double bruit could be heard in the sternal region; there was also visible pulsation of the carotid and subclavian arteries, and when the thumbs were buried in the supraclavicular fossae, a distinct fremitus was communicated. He presented no very alarming symptom until the 9th of February, when, while dressing, he suddenly fell upon his knees, tried to rise again, and climb upon his bed, and in less than ten minutes he was dead.

The aorta, from its origin in the ventricle through nearly its entire arch, was greatly dilated, and was one mass of disease; it was lined by a coat formed of atheromatous deposit; and in addition, it was dotted with deposits of bone, almost as thick as they could lie together on its innermost surface. Immediately above one of the valves was a small aneurismal pouch, about as large as a small hazel nut, with merely a wall of the thinnest serous or cellular membrane, and through this a rupture had taken place. The opening was very small, not larger than would admit a crow-quill, and yet, in the short time that life lasted, an enormous quantity of blood, at least some quarts, was poured into the cavity of the right pleura.

The most remarkable appearance in this specimen was the prodigious amount of osseous deposit in the arch of the aorta, and a small portion of the descending aorta, so that the orifices of the vessels arising from this part of the artery were bony rings. The disease here did not extend to the aortic valves, they were perfectly free and sound in their texture, but they were rendered inefficient for their office by the dilatation of the diseased aorta, the valves being no longer able to meet in the centre. The mitral valve was perfectly healthy.

Case of great Enlargement of the Heart: running its course in five months.—Aneurism of the Superior Mesenteric Artery.

Dr. HENRY KENNEDY exhibited a specimen of disease of the heart, which he thought important on this account, that the origin and duration of the case were known. To this special point Dr. Corrigan had very judiciously drawn attention on former occasions. The patient was a man of 37 years of age, a coachman, and sober, and had never suffered any serious illness till the first week in October, 1857, when he was seized with symptoms of fever, accompanied by severe pains like rheumatism, but no swelling of the joints. With these symptoms his breathing was also affected; and Dr. Faussett,

of Clontarf, had treated him for affection of the heart. On admission into Sir P. Dun's Hospital he came first under the care of Dr. Duncan, to whom Dr. Kennedy was indebted for an opportunity of exhibiting the specimen. When admitted he was under the influence of mercury. The respiration was still laboured, but there were no signs of pericarditis. Shortly, however, a soufflet, which soon became double, developed itself over the aortic valves, even though mercury and other treatment was again steadily put in force, so that by the end of six weeks the case was one of too well marked aortic valve disease. The bounding of the arteries was to an extreme degree, being quite visible on the upper part of each foot. On this point Dr. Kennedy observed that an ordinary bounding of the arteries was not conclusive evidence of diseased aortic valves. He had seen bounding present, when, on examination, it was proved the valves were quite capable of retaining water. With the ordinary signs of this disease, the patient very soon began to complain of a sense of sinking, particularly on making the slightest exertion; and when he came under Dr. Kennedy's care, this sinking had become extreme, so much so that for weeks before death it was not safe to raise him to the sitting posture. Dropsical effusions showed themselves towards the last, though not to an extreme degree. The patient died, apparently, from syncope. For fully ten days before death no soufflet could be heard, a point long recognised in Dublin, but which, in London, seems not yet known, at least if we are to judge from a case given in the last volume of their Pathological Transactions. The entire duration of the case was about five months, or a little more. The examination disclosed a very large heart, which, free of all blood, weighed thirty ounces; it had the usual shape of the organ in this disease. The texture was paler and softer than natural; and there was a good deal of fat, infiltrated with serum, over the right cavities, all of which were much dilated, as was also the first portion of the aorta itself. The aortic valves were most extensively diseased, being all converted into vegetations, the deposit being a material which broke down with great ease under the finger. There was no gritty matter, nor bony, and the inference was, that the vegetations were the result of a comparatively speaking recent growth. There was commencing disease on the mitral valve. Whilst examining the abdomen, Dr. Burland discovered a tumor, the size of a large walnut, situated, as it were, in the omentum. On closer examination, this turned out to be an aneurism of the superior mesenteric artery, being the third specimen of the kind yet placed on record; one was brought before the society by Dr. O'Ferrall, the second is detailed in the last volume of the Pathological Transactions of London, and the third is the one now exhibited. The kidneys were both enlarged, and, in a marked degree, mottled.

Selections from Recent Contributions

TO

CHEMISTRY, PHARMACY, AND MATERIA MEDICA.

(Continued from page 75.)

NEW RE-AGENT CAPABLE OF DISCOVER- ING ALL THE ALKALOIDS.

Although legal medicine possesses, in M. Flandin's process, an easy and rapid method of isolating the alkaloids, we deem it not superfluous to place on record our fresh acquisitions in that department.

A German chemist, M. Sonnenschein, has just made known (*Annal. der Chem. und Pharm.*) a new re-agent of much importance, inasmuch as it is stated to possess the property of precipitating all organic bases, except from acids whose combinations have an alkaline re-action. The following is the information given on the subject by M. Berthé, in his pharmaceutical review, published in the *Moniteur des Hôpitaux*.

This re-agent, which is phospho-molybdic acid, is prepared by precipitating molybdate of ammonia with phosphate of soda; the yellow precipitate is very carefully washed, mixed with water, and heated with carbonate of soda until it is perfectly dissolved; the solution is then evaporated to dryness, and heated, to drive off all the ammonia. If in consequence of this exposure to heat, a part of the acid is reduced, the precipitate is re-heated, having previously been moistened with nitric acid. It is now again heated with distilled water, to which nitric acid is added, until a strongly acid re-action is produced; distilled water is then poured on in sufficient quantity to yield a solution containing one-twelfth of phospho-molybdic acid. In this state the re-agent appears as a golden yellow liquid, which is to be carefully kept from ammoniacal fumes.

Phospho-molybdic acid possesses the property of precipitating almost all the alkaloids from their saline or other solutions, faint traces of ammonia being present. These precipitates are generally but sparingly soluble in alcohol, ether, and dilute mineral acids, with the exception of phosphoric acid; boiling concentrated nitric acid dissolves them; they are wholly insoluble in dilute nitric acid. They are, on the contrary, soluble at the boiling point in acetic, oxalic, tartaric, and citric acids; acetic acid, however, deposits the precipitate on cooling, and tartaric and citric acids decompose molybdic acid during the ebullition. The alkaline earths, the oxides of silver and of lead, and their carbonates, and a *fortiori* hydrates, carbonates, borates, and alkaline phosphates, dissolve these precipitates, but most frequently they at the same time displace the alkaloid. In a word, phospho-molybdic acid furnishes, according to the author, a re-agent of such delicacy, that he thinks it possible by means of it to estimate the organic alkalies, and he does not hesitate to propose its employment in medico-legal researches.

The following is the course he recommends in such investigations. He treats the suspected matter with water, acidulated with hydrochloric acid, and reduces the product to a syrupy consistence; he filters and precipitates with an excess of phospho-molybdic acid; he then separates the precipitate, washes it with distilled water, containing phospho-molybdic acid, and a little nitric acid, then he introduces it into a flask; at this moment he adds caustic baryta in excess, and, by means of a tube, connects the flask with Liebig's tube, containing hydrochloric acid; heat is applied, and if the alkaloid is volatile, it is found in the receiver; if it is fixed the operator neutralises the residue with a current of carbonic acid, then by means of concentrated alcohol, he removes the organic alkali, which the alcohol leaves in a state of greater or less purity, which may, however, always be rendered absolute.

Such is the new analytical process, communicated by M. Sonnenschein, which, from its simplicity, and according to the author, by its precision, is likely to prove most useful.*—*Bulletin Général de Thérapeutique*, 15th March, 1858, p. 214.

NEW METHOD OF PREPARING PHOSPHATE OF LIME FROM BONES.

By M. DANNÉCY, Pharmacien at Bordeaux.

Every one is acquainted with the interesting memoir by M. Mourids, entitled *De l'Alimentation insuffisante par défaut de phosphate de chaux*, and the report of M. Bouchardat on this work. In this report the learned professor of the faculty of Paris unfolds and reviews the opinions of physiologists, enumerates the experiments and most accurate analyses of chemists, all of which demonstrate that alimentation alone furnishes the material elements of the organs during the first developments of life, and subserves the incessant renovation necessitated by the vital action in adults, as well as the transformations which characterize old age.† These considerations force on us the conclusion, that it is extremely important to present to the system the mineral elements of the tissues in the molecular state most nearly approaching to that which is to be organized under the vital influence. The phosphate of lime of the laboratories, that inadequate representative of the osseous frame-work, was at first proposed, then the bones themselves in a state of minute division; but, in the latter case, the final molecule often presented too great resistance to the digestive solvents.

I have just proposed a method of perfectly disintegrating bones: Beef bones, washed and crushed, two and a-fifth pounds, avoirdupois; water, thirteen pounds; pure carbonate of potash or soda, three ounces; boil for an hour; a sort of perfectly homogeneous pulp is formed; throw this pulp on a filter, the alkaline fluid passes through; wash the precipitate several times with hot water; dry; pass through a silk sieve; an extremely fine powder, soft to the touch, and as light as that of lycopodium, will be obtained.

This powder contains all the natural elements of bones, less the gelatine which kept the other constituents together. It is evident that this chemical disintegration reaches the furthest limit of possibility; it is truly molecular.

The phosphate of lime of bones thus prepared is easily suspended in mixtures, and in cod-liver oil; it is capable of administration in all pharmaceutical forms, as pastilles, pills, &c.—*Ibid.* page 216.

PRESERVATION OF ISSUE PEAS.

Eighteen years ago we stated in the *Bulletin de Thérapeutique*, that the best mode of preserving ergot of rye and cantharides from the attacks of insects, was to enclose them in tightly-stopped glass bottles, and to sprinkle the substances from time to time with a few drops of sulphuric ether. In fact we then observed that animal life can neither be developed nor maintained in an anæsthetic medium.

* M. Sonnenschein states, that one cubic centimetre of his re-agent produces a very distinct precipitate in a fluid containing 71 millionths of strychnine.

† In support of the views just formed by M. Bouchardat, M. Dannécy might have adduced the results of the experiments of M. Milne-Edwards, jun., testifying to the good effects of the use of phosphate of lime in fractures, and the instances of cure of cases of caries of the vertebra, treated with this salt, published by M. Piorry. Although the therapeutic value of the phosphate is far from being decided by these facts, the investigations of the above experiments have largely contributed to introduce the phosphate into practice.—*Note of the Editor of the Bulletin de Thérapeutique.*

Applying this idea, an intelligent physician, M. Doyère, has employed chloroform and sulphuret of carbon to asphyxiate grubs, the larvæ of which are developed in corn, in green or dry peas, in the pith of certain trees, and in some dried roots.

In the month of December last, a pharmacien of Orleans, M. Jules Alliot, did not hesitate to face the critical idea of a Latin poet, *bis repetita placent*, by proposing sulphuric ether as an agent for preserving roots, leaves, and pharmaceutic grains. We are happy to see what we have said confirmed; still better, we invite our brethren to persevere in employing ether as a preservative, and to apply it to the preservation of issue peas; they will avoid a daily and often very heavy loss.

The following is the mode of proceeding:—

Put into each bottle containing issue peas a very small flask of sulphuric ether, stopped so as to admit of but a slight evaporation of the fluid. Slight as it may be, it will more than suffice to prevent the development of the *anobium puniceum* in the substance which forms medical agents. This *bis in idem* is attended with no inconvenience; it in no wise modifies the properties or physical action of the issue peas.—*Ibid.*, p. 217.

[It has long been known that camphor, essential oils, and other odoriferous principles, are highly inimical to insect life, and as such they are in common use in the preservation of books, papers, woollens, &c.]

ON THE PREPARATION OF IODATE OF POTASH.

In an article on the action of chlorate of potash, published in the *Bulletin de Thérapeutique*, M. Gustin stated that the therapeutic effects he had witnessed led him to try some other salts, having, in a chemical point of view, a most striking analogy to the chlorate, namely, the alkaline iodates and bromates. M. Gustin has commenced by studying the properties of iodate of potash; and in order to be able to answer for the chemical purity of the product he employed, he has himself prepared the salt.

The following is the process he followed:—

One part of chlorate of potash is added to five or six of water, previously acidulated with some drops of nitric acid, and the solution is raised to the boiling point. As soon as the disengagement of chlorine has ceased, the fluid is treated with a concentrated solution of iodide of barium. The iodate of baryta, washed with distilled water, is decomposed by sulphuric acid. The sulphate of baryta is separated by filtration, and the filtered liquor is subjected to slow evaporation. The crystals of iodic acid are separated and washed with distilled water; they are re-dissolved in boiling distilled water, and the solution is saturated with bicarbonate of potash. On cooling, a great quantity of iodate of potash is deposited in the form of little crystals.

The dose in which the iodate of potash has been tried has varied from about four to about twenty-three grains. Hence it appears that this salt acts in a smaller dose than the chlorate; its action is also quicker and more energetic, thus the iodate has cured certain cases of gangrenous stomatitis, in which the chlorate had failed. As M. Gustin is about to publish an extended essay upon the therapeutic value of this new agent, we shall confine ourselves for the present to the foregoing.—*Bulletin de Thérapeutique*, 30th March, 1858, p. 260.

WATER DISTILLED WITH SPIRIT FROM MUSTARD AS A REVULSIVE AGENT.

Take of black mustard seed, 48 ounces; alcohol, of specific gravity 847°, eight ounces; water, as much as may be necessary. Bruise the mustard seeds, place them with the spirit, and a sufficient quantity of water, in a retort, and distil until the product amounts to 32

ounces. It is important that the mustard should be freshly bruised.

Compresses moistened with this preparation produce, according to M. Heusler, the same effects as sinapisms. This very rapid action, and the facility of their employment, may be serviceable in practice.—*Ibid.*, p. 260.

NEW PROCESS FOR THE PREPARATION OF CHLORO-IODIDE OF MERCURY.

[In our last volume we gave, at page 365, a paper by M. Gobley on the above salt. The following is by M. Dannecy, pharmacien to the civil hospital at Bordeaux.]

The formulæ published by different authors for the preparation of the chloro-iodide of mercury are very various, consequently the specimens furnished by the manufacturers of chemical products differ much from one another: and, as was to be expected, an injurious uncertainty in the therapeutic effects of the remedy is the result. Sometimes the ointments, in which it is the active principle, are absolutely innocuous, at other times they are corrosive.

This it is which determined me to seek for a mode of preparation of easy execution, affording a salt of definite composition, and resisting the decomposing effects of solution and sublimation.

I shall not review the processes successively proposed; all afford mixtures of chlorides and iodides of mercury in variable proportions, from which water, alcohol, or heat take one or other of these compounds, according as one or other is predominant, and the therapeutic action of these mixtures resembles more or less that of the chlorides or of the iodides of mercury.

Everyone can understand the serious inconvenience of such uncertainty, which would be sufficient to cast discredit on the most valuable remedies.

The following is the process I propose:—

Take, on the one hand, of pure iodine, 386 grains; alcohol, of specific gravity 816°, six ounces; dissolve. Take, on the other hand, protochloride of mercury, 772 grains; introduce the mercurial salt into a flask, heat it in boiling water, add by degrees the alcoholic solution of iodine, agitating the flask from time to time.

In proportion as the alcohol is added, the combination takes place, which is easily known by the decoloration of the fluid. Saturation soon takes place, and the alcoholic solution of iodine is no longer free from colour; the calomel is then transformed into a scarlet-coloured salt, of great brilliancy.

Throw this new salt upon a filter, and wash it with a little alcohol, to free it from the excess of alcoholic solution of iodine with which it is moistened; nothing now remains but to dry it.

The chloro-iodide of mercury thus obtained is perfectly homogeneous, in small cubic crystals of a very brilliant scarlet red colour. It is soluble in twenty times its weight of cold alcohol, and crystallizable by the evaporation of this vehicle, resuming its form and all its original properties. It is insoluble in water; is sublimable by heat, without decomposition; and on cooling, the vapours reproduce the same scarlet red compound in small cubic crystals.

The supernatant liquid left by the chloro-iodide of mercury, prepared as above, is very complex. On evaporation we obtain an indefinite mixture of at least three compound mercurial chlorides and iodides, appearing to have but little stability, and at last we find again the cubic chloro-iodide of mercury just described, a portion of which had remained in solution.—*Ibid.*, p. 262.

REMARKS ON THE MEDICINAL HYPOPHOSPHITES.

By WILLIAM PROCTER, JUN.

The hypophosphites, according to Gmelin, are mostly crystallizable. They cannot exist without a certain proportion of water, which is equally true of the acid

itself, which in its most concentrated form contains three equivalents of water, one of which is replaceable by bases. When heated till decomposed, these salts emit phosphuretted hydrogen. They are permanent in the air, as regards oxidation; but when heated in solution, especially if free alkali is present, they are decomposed into phosphates and hydrogen gas. They are nearly all soluble in water, and several of them in alcohol, and readily reduce the soluble salts of silver and gold.

Hypophosphite of Lime is the most important of these salts, as it not only, by oxidation in the economy, will afford phosphate of lime in a nascent state, if needed, but its reactions with the carbonates of the alkalies give a ready means of obtaining the alkaline hypophosphites. When phosphorus is boiled with milk of lime it gradually disappears, with evolution of spontaneously-inflammable phosphuretted hydrogen, which explodes as it reaches the atmosphere, with the formation of water and phosphoric acid. When the strong odour of the phosphuretted hydrogen ceases to be given off, the liquid contains, besides the excess of lime, nearly half of the phosphorus as phosphate of lime; and the remainder, deducting the considerable portion which has escaped into the air as phosphuretted hydrogen, as hypophosphite of lime. According to Wurtz, more than one equivalent of water is decomposed, and the phosphuretted hydrogen is accompanied by free hydrogen. If this be true, the source of the super-oxidation of so much of the phosphorus is traceable to the resulting oxygen; but Rose is of the opinion that this oxygen is derived from the atmospheric air in contact with the boiling liquid. When the process is conducted in a flask, it requires a constant ebullition of the liquid to prevent the explosion consequent upon the entrance of the atmospheric air. To avoid this result, it has been found safer to employ a deep, open vessel. The constant evolution of gas and vapour, which keeps a froth on the surface, excludes the atmosphere in a great degree; so that the yield is not much diminished, whilst the safety and easiness of the process is greatly increased. The process should be conducted under a hood with a strong draught, or in the open air, to avoid the disagreeable fumes which are evolved.

Take of Lime, recently burned, 4 lb. av.
Phosphorus, 1 lb. av.
Water, 5 gals.

Slake the lime with a gallon of the water, put the remainder in a deep boiler, and as soon as it boils add the slaked lime, and mix to a uniform milk. The phosphorus is now added, and the boiling is kept up constantly, adding hot water from time to time, so as to preserve the measure as nearly as may be, until it is all oxidized and combined, and the strong odour of the gas has disappeared. The mixture froths much, and but little of the phosphorus reaches the surface. Then filter the solution through close muslin, wash out that portion retained by the calcareous residue with water, and evaporate the filtrate till reduced to six pints. The concentrated liquid should now be re-filtered, to remove a portion of carbonate of lime, which has resulted from the action of the air on the lime in solution, and again evaporated till a pellicle forms, when it may be crystallized by standing in the drying-room; or the heat may be continued with stirring till the salt granulates, when it should be introduced into bottles.

Hypophosphite of lime is a white salt, with a pearly margaric-like lustre, and crystallizes in flattened prisms. Its composition, according to Wurtz, is $\text{CaO} \cdot 2\text{H}_2\text{O} \cdot \text{PO}$, the water being essential to the salt. It is soluble in six parts of cold water, and in not much less of boiling water; it is soluble slightly in diluted alcohol, but insoluble in alcohol ap. gr. 835.

Hypophosphite of Soda is prepared by double decomposition between hypophosphite of lime and crystallized carbonate of soda.

Take of Hypophosphite of lime, 6 ozs.
Crystallized carbonate of soda, 10 ozs.
Water, a sufficient quantity.

Dissolve the hypophosphite in four pints of water, and the carbonate in a pint and a half; mix the solutions; pour the mixture on a filter, and lixiviate the precipitate of carbonate of lime, after draining with water, till the filtrate measures six pints. Evaporate this liquid carefully till a pellicle forms, and then stir constantly, continuing the heat till it granulates. In this state the salt is pure enough for medical use, but if desired in crystals, treat the granulated salt with alcohol sp. gr. 835, evaporate the solution till syrupy, and set it by in a warm place to crystallize.

Hypophosphite of soda crystallizes in rectangular tables, with a pearly lustre, is quite soluble in water and in ordinary alcohol, and deliquesces when exposed to the air. Its composition is $\text{NO} \cdot 2\text{H}_2\text{O} \cdot \text{PO}$.

Hypophosphite of Potassa is prepared by the same process as that given above for the soda salt, substituting 5½ ounces of granulated carbonate of potassa in place of 10 ounces of crystallized carbonate of soda, and using half a pint instead of a pint and a half of water to dissolve it.

Hypophosphite of potassa is a white, opaque, deliquescent salt, very soluble in water and alcohol. Its greater tendency to absorb moisture renders it less eligible for prescription than the soda salt. Its composition is $\text{KO} \cdot 2\text{H}_2\text{O} \cdot \text{PO}$.

Hypophosphite of Ammonia is prepared from hypophosphite of lime and sulphate or carbonate of ammonia.

Take of Hypophosphite of lime, 6 ozs.
Sequi-carbonate of ammonia (translucent),
7·23 ozs.

Water, a sufficient quantity.

Dissolve the lime salt in four pints of water, and the ammonia salt in two pints of water; mix the solutions, drain the resulting carbonate of lime, and wash out the retained solution with water. The filtrate should then be evaporated carefully to dryness, then dissolved in alcohol, filtered, evaporated, and crystallized.

This salt is deliquescent in the air, very soluble in alcohol and water, and when carefully heated evolves ammonia, and leaves hydrated hypophosphorous acid. The composition of this salt is $\text{NH}_3 \cdot 2\text{H}_2\text{O} \cdot \text{PO}$.

Hypophosphite of Sesquioxide of Iron.—This salt may be obtained in the form of a white gelatinous hydrate, by precipitating a solution of hypophosphite of soda or ammonia with one of sesqui-sulphate of iron. The precipitate should be well washed with water, and dried at a moderate temperature. It is necessary to avoid using a hypophosphite containing any alkaline carbonate, or the precipitate will be contaminated with free sesquioxide. Thus prepared, this salt is a white, amorphous, tasteless powder, like the pyrophosphate, soluble in hydrochloric acid and in free hypophosphorous acid.

Hypophosphorous Acid.—So far as we are aware, this acid has not been employed in a free state by Dr. Churchill, but it is highly probable that it may come into use, should the favourable results claimed for its salts be substantiated by new observations. Any claims which phosphoric acid may possess as an agent to supply the waste of phosphorus and phosphates in the human economy, will be more than equalled by this acid. Hypophosphate of baryta is the salt which is most eligible for the preparation of this acid, but it is more convenient to prepare it from the lime salt, viz. :—

Take of Hypophosphite of lime, 480 grs.
Crystallized oxalic acid, 350 grs.
Distilled water, 9 fluid ozs.

Dissolve the hypophosphite of lime in six ounces of the water, and the acid in the remainder, with the aid of heat; mix the solutions; pour the mixture on a white paper filter, and when the liquid has passed, add distilled water carefully, till it measures 10 fluid ounces, and evaporate this to 8½ fluid ounces.

The solution, thus prepared, contains about ten per cent. of terhydrated hypophosphorous acid ($\text{HO} \cdot 2\text{H}_2\text{O} \cdot \text{PO}$), a teaspoonful representing six grains of the acid, which contains 2½ grains of phosphorus. The dose of

this acid solution will probably vary from ten minims to a teaspoonful.

It is proposed to give several forms in which the hypophosphites may be conveniently administered, and a few hints to the physician in reference to prescribing them.

The soluble salts of mercury and silver are reduced by contact with the hypophosphites. All soluble sulphates and carbonates are incompatible with the lime salt, and should not be associated with it in prescriptions, if phosphate of lime is indicated in the case. The iron salt, when dissolved by excess of acid, is coloured black by gallotannic acid and drugs containing it, but is not blackened by the tannin of cinchona, catechu, and krameria; hence any preparation containing it may be associated with Peruvian bark. The hypophosphites of soda, potassa, and ammonia, are more or less deliquescent, and when prescribed in powder, it should be with proper precautions to avoid moisture, as by association with a considerable excess of sugar of milk. The lime salt may be mixed with either this sugar or ordinary sugar. None of these salts are soluble in cod-liver oil, and if given with it, they should be dissolved in syrup, and mixed by agitation. Where lactic acid and glycerin are indicated in the treatment of phthisis or dyspepsia, any of these salts may be very elegantly associated in the form of syrup.

Syrup of Hypophosphite of Lime.

Take of Hypophosphate of lime, an ounce;

Water, $9\frac{1}{2}$ fluid ounces;

White sugar, 12 ounces;

Fluid extract of vanilla, half a fluid ounce.

Dissolve the salt in the water, filter, add the sugar, dissolve by aid of heat, and add the vanilla. The dose is from a teaspoonful ($3\frac{1}{2}$ grs.) to a tablespoonful (14 grs.), according to the circumstances of the case, three times a day.

Compound Syrup of Hypophosphites.—The following formula has been made in view of the double purpose to which these salts are directed by Dr. Churchill—viz., the increase of nerve force, and the elevation of the tone of the several functions concerned in alimentation and nutrition; and will afford an agreeable means of testing practically their merit. The iron salt is presented in a form well adapted for entering the circulation, whilst the acid, besides exerting its solvent power, adds to the agreeable taste of the preparation.

Take of Hypophosphite of lime, 256 grains;

Hypophosphite of soda, 192 grains;

Hypophosphite of potassa, 128 grains;

Hypophosphite of iron* (recently precipitated), 96 grains

Hypophosphorous acid solution, q. s., or 240 grains;

White sugar, 12 ounces;

Extract of vanilla, $\frac{1}{2}$ ounce;

Water, a sufficient quantity.

Dissolve the salts of lime, soda, and potassa in 6 ounces of water; put the iron salt in a mortar, and gradually add solution of hypophosphorous acid till it is dissolved. To this add the solution of the other salts, after it has been rendered slightly acidulous with the same acid, and then water, till the whole measures 9 fluid ounces. Dissolve in this the sugar, with heat, and flavour with the vanilla. Without flavouring, this syrup is not unpleasant, being slightly saline, and not at all ferruginous. Any other flavouring may be used—as orange-peel, orange-flower, or ginger. It is also suggested to physicians that glycerin may be used, wholly or partially, in place of sugar when indicated; six ounces and

* This quantity (96 grains) of hypophosphite of iron is obtained when 128 grains of hypophosphite of soda, dissolved in two ounces of water, is decomposed with a slight excess of solution of persulphate of iron, and the white precipitate well washed on a filter with water.

a half of glycerin being substituted for twelve ounces of sugar. The object of acidulating the saline solution is, to decompose any alkaline carbonates which may be present, and which have been noticed by the writer in some of the commercial soda salt. The dose of this preparation is a teaspoonful three or four times a day. A teaspoonful contains 2 grains of the lime salt, $1\frac{1}{2}$ of the soda salt, 1 of the potassa salt, and $\frac{3}{4}$ of a grain of the iron salt, besides a little hypophosphorous acid.—*Pharmaceutical Journal*, April 1, 1858, p. 521; from the *American Journal of Pharmacy* for March.

Reviews.

Lectures on Diseases of the Stomach, and Indigestion. By CATHCART LEES, M.B., Physician to the Meath Hospital, &c. Dublin: Fannin & Co.

Our readers are already conversant with the merits of this work, inasmuch as it is a reprint of a very valuable series of lectures which appeared from time to time in our pages. They have undergone, however, at the author's hands, very careful supervision, and may be consulted as a very accurate compendium of our present knowledge of these diseases, their pathology, diagnosis, and treatment.

Our space would not permit us, even if it were necessary, to give any lengthened extracts from Dr. Lees' treatise—and this difficulty is increased by the condensed character of the work, for we find compressed into it the labours of many volumes devoted to this special subject. As a specimen of the general style, we would refer to the clear and able manner in which he treats of the subject of *Vomiting*—a symptom, the exact nature of which the physician is not unfrequently at a loss to determine—whether its cause exists in the stomach itself, or whether it “relates to those parts with which the stomach consents.”

Dr. Lees' division of vomiting is, into Essential, Morbific, Mechanical, Sympathetic, and Nervous.

“Essential vomiting is caused by some derangement in the natural secretion of the stomach itself, or by congestion, inflammation, or some structural change in that viscus; and may arise in every degree, from the simplest form of indigestion, to the most violent degree of inflammation caused by the action of irritant or corrosive poisons.

“Morbific vomiting includes every case caused by a morbid state of the blood, as seen in scarlatina, variola, erysipelas, purpura, pyæmia, cholera, yellow fever, jaundice, and other diseases in which an effort is made to eliminate some materies morbi from the system, through the gastric mucous membrane. Mechanical includes those cases of vomiting which occur in consumption, bronchitis, and pertussis simply from the violence of the cough causing spasmodic action of the diaphragm and other muscles; also cases caused by distension of the stomach, from solid, liquid, or gaseous substances; or owing to pressure of an enlarged liver or spleen; even from stays being too tightly laced. Certain trades, also, by requiring a stooping position, and so compressing the stomach, may cause it; and any mechanical obstruction to the passage of food out of the stomach, or during its progress through the bowels, will have the same effect.

"Sympathetic means that form of vomiting caused by disease or irritation in some part of the system remote from the stomach, which itself is free from disease.

"By nervous vomiting is meant a form induced by some modification of innervation of the stomach, or independent affection of the gastric nerves, unconnected with any change of structure, or apparent cause of irritation, in either that viscus itself or any other part of the system."

To this form Dr. Lees refers that peculiar form of vomiting which has been termed "regurgitating." We can confidently recommend Dr. Lees' work, as a carefully compiled and scientific manual of the diseases of the stomach.

A Sketch of the Principles and Practice of Subcutaneous Surgery. By WILLIAM ADAMS, Surgeon to the Royal Orthopædic Hospital.

As subcutaneous operations form a comparatively new branch of surgery, everything connected with a subject of such practical importance is of interest. We regard Mr. Adams's sketch of the subject as most instructive, and we think the Medical Society of London (to whom it was presented in the form of an address) showed much judgment, and an accurate appreciation of its merits, in requesting the lecturer to publish it.

Mr. Adams considers that the great principle on which subcutaneous surgery is founded, is the "law," propounded originally by John Hunter, relating to the difference in the healing of those wounds which are subcutaneous, and of those which (to use Hunter's expression) "communicate externally." In the first, as every one knows, the parts seldom inflame, whilst those in the second commonly both inflame and suppurate.

Mr. Adams, we think, is in error, in making Hunter attribute this difference to the contact of air in the one form of wound, and its exclusion in the other. In the paragraph quoted from Hunter (at page 6) no such statement is made. Guerin is stated to lay down precisely the same law, without even so much as the mention of Hunter's name. Foreign writers are, we must confess, rather addicted to this sin of omission; but in the present instance we observe that Guerin goes further than Hunter, and connects the non-occurrence of inflammation in subcutaneous wounds with the exclusion of air.

We cannot think so elementary a principle in surgery had anything to say to the introduction of subcutaneous operations. Such operations were devised for the removal of deformities, and were at first, we think, rather experimental; but the great success of these early operations led gradually to their more extensive employment.

The different varieties of subcutaneous operations are briefly, but practically, considered under several classes.

Class 1 are those operations in which the *sole object* is to prevent inflammation—as in the re-

moval of foreign bodies from joints by subcutaneous incision; and first performed by M. Goyrand, of Aix, according to the evidence adduced by Mr. Adams, in the appendix. In this class are also contained many of the operations in ophthalmic surgery; as needle operations for cataract; operations for artificial pupil; and also the subconjunctival division of the muscles, for strabismus.

Class 2 includes those cases in which there is the additional object of obtaining a new connective tissue:—as in the different operations for subcutaneous tenotomy and myotomy. The subcutaneous division of stricture of the urethra (Dr. Dick) belongs also to this class.

The 3rd class includes those operations where the object is to avoid an excessive amount of inflammation, some inflammation being unavoidable. The best example of this class is the operation for hernia, without opening the sac. This operation, proposed by L. Petit, is, as Malgaigne remarks, "the first scientific mention of the subcutaneous method."

In class 4 are the operations performed subcutaneously, with the object of exciting a moderate degree of inflammation.

Example 1.—Various operative proceedings to obtain union in "ununited fractures"—as, 1st, setons; 2nd, pegs; and 3rd, the division, with a tenotomy knife, of all the soft tissues from about the fractured ends, which are then placed in apposition.

Example 2.—Cure of enlarged bursæ by subcutaneous incision or puncture.

Example 3.—Wutzer's operation for the radical cure of inguinal hernia, by invaginating the hernial sac through the inguinal canal, and transfixing it with a needle.

Example 4.—Various subcutaneous operations for the cure of varicose veins—as Brodie's, Lee's, and Ricord's.

In Class 5, subcutaneous surgery is employed to arrest inflammation and relieve pain; as in the subcutaneous division of inflamed periosteum, and the subcutaneous method of opening abscesses, in different situations, with which practical surgeons are so familiar.

We have alluded to these various operative proceedings to illustrate the wide extent of subcutaneous surgery; and we recommend Mr. Adams's little book, as containing a valuable exposition of the value and importance of subcutaneous surgery.

INOCULATION WITH THE MATTER OF SMALL-POX.—At Moneygall Petty Sessions, a woman, named Catherine Tierney, residing at Busherstown, was recently charged with inoculating two children for small-pox. The case was clearly proved, but as it appeared that the *doctress* had acted through ignorance, and as she undertook to give up the practice for the future, she was sentenced only to an imprisonment of twenty-four hours.

Selections from British & Foreign Journals.

ON THE SICKNESS AND MORTALITY IN THE FRENCH ARMY IN THE EAST FROM 1854 TO 1856.

By GAVIN MILROY, M.D.

The first French troops, eight thousand in number, landed at Gallipoli, on the European side of the Dardanelles, at the end of March, 1854. They were camped out a few miles beyond the town, which, like all the Turkish towns, abounds in filth and unwholesomeness. Two or three buildings within the walls were at first occupied for a hospital, but they had soon to be abandoned. This was invariably the case throughout the whole campaign whenever native buildings were made use of without previous thorough purification.

By the beginning of June, the force assembled was from forty to fifty thousand strong. The sick rate did not exceed fifteen per thousand of strength. In consequence of the threatened fall of Silistria, the greater part of the troops were sent on to Varna to be near the seat of war. With the increased heat of summer, the sick list had gone up rapidly, and bowel complaints had become very prevalent, and began to assume a choleraic character. Sporadic cases of malignant cholera occurred in the last week of June, both at Varna and at Gallipoli and Constantinople. The disease became more prevalent and severe in July, at every station. Many of the crowded transports from France and Algeria had cases on board during the voyage out. The disease seems to have manifested itself in the South of France that year about the same time that it did in Turkey.

M. Scrive, the principal medical officer of the French army, (from whose instructive *Relation Medico-Chirurgicale de la Campagne d'Orient* most of the details of the present paper are drawn,) was satisfied that the cholera was not imported by the arrival of troops from France, as has been alleged, but that it developed itself on the spot, although the frequent disembarkation of predisposed and infected troops aggravated the mischief.

At the end of July, while the choleraic influence was prevalent everywhere, the unfortunate expedition into the Dobrudscha, the notoriously malarial district on the south side of the Danube, was undertaken. The medical staff were not consulted upon the occasion, and no special hygienic precautions were thought of by the military authorities in command. The results were most disastrous. Within a week from leaving Varna, the most advanced division had been more than decimated by a terrible explosion of the pestilence, its deadly power being aggravated by the fatigue and privations to which the troops had been subjected. The loss of life was immense. On its return to Varna, death and sickness had reduced the effective force of the division by one-third of its number. The mortality from cholera alone during the months of July and August amounted to between five and six thousand, and this, too, before a shot had been fired. There had been also much sickness from other diseases at the same time. The sites of many of the camps were bad; the tents were crowded, and much of the food was unsuitable for the then condition of the troops.

When the army sailed on the 7th of September for the Crimea, its health was considered tolerably good. Cholera had nearly ceased; there were but few cases during the voyage, or for several days after landing at Eupatoria. The battle of Alma was fought on the 20th; the French, 23,000 strong on the occasion, had 300 killed and 900 wounded. Cholera increased immediately after the battle, in consequence, it was believed, of the armies halting for a couple of days on the field, strewed with the putrid carcasses of hundreds of horses, and polluted with other abominations. Excessive fatigue and indifferent food had also something to do with the increase. The officers on this occasion

suffered as much as the privates; the food of both was the same, and they were exposed to the same privations.

In October, the first month of the siege, cholera occasioned a fourth part of the entire sickness in the camp, and two-thirds of the whole mortality. The newly-arrived troops invariably suffered most. This was uniformly the case during the whole campaign. Between a seventh and an eighth part of the entire force, now 60,000 strong, was sent into hospital during the month by sickness alone. Scurvy had begun to appear. Complaints were made of the food. Hitherto the weather had been favourable.

In November things became worse in every respect. After the terrible storm on the 14th the weather was much more inclement. Cholera had subsided, but scorbutic diarrhoea and dysentery had much increased. The death-rate to cases rapidly went up. Wounds did not now heal favourably. A good many cases of severe frost-bite occurred. The shelter and clothing of the men were quite insufficient; they had only *tentes d'abri* to cover them. Throughout December and January the sufferings of the men were terribly aggravated. They were still without proper tents or suitable clothing, and the supplies of food, such as it was, were scanty. Many were frozen to death, and several thousands were sent into hospital from severe frost-bites. A third of these cases proved fatal. Scorbutic disease prevailed throughout the camp. In January, out of a nominal force of 78,000, upwards of 15,000 were either sent into the ambulances on the field, or shipped off to the hospitals at Constantinople.

In February the state of things was even more dreadful. Besides scorbutic diseases utterly intractable, typhus and hospital gangrene were frequent in the hospitals, and the medical officers could do nothing to prevent their spreading. The more favourable weather in March and April gave the opportunity of effecting various improvements in the condition of the troops, both sick and well; and with these the health of the men became somewhat better; but the continuing want of fresh vegetables kept up a scorbutic taint among all the old troops. The cholera, which had been in abeyance during the winter, began to reappear in April, and it advanced with the advancing season. The great increase in May was doubtless owing in a great measure to the large reinforcements which arrived this month, as new comers were always more liable to be attacked than others. Hence the necessity for special precautions under such circumstances—an important point in military hygiene. The erratic movements of the disease in the camp were quite inconsistent with the idea of their being dependent upon transmission by contagion. Notwithstanding the constant arrivals of vessels with cases on board at Kamiesch, it never spread to the population there.

June was an exceedingly sickly as well as a very sanguinary month. Nearly a sixth part of the army, then 122,000 strong, was sent into hospital by disease and wounds. The proportion of admissions from the latter cause was as one to between three and four from the former. Cholera reached its acme this month. Besides an increase of bowel disease and malarial fevers, scurvy was again on the increase. For the previous two or three months the men had collected a good deal of the wild *taraxacum*, of which they made a salad. The summer heats had now withered it up, and they were left without a substitute! So prevalent was the disease in July, that M. Servia says that "all our old soldiers are at this time more or less scorbutic." In August the number of fresh cases of scurvy taken into hospital was double that in July. Cholera had declined, but there was still an enormous amount of sickness, chiefly from bowel complaints and fevers. Nearly 11,000 sick were shipped off this month to Constantinople, and between 15,000 and 16,000 admissions into the ambulances took place. In the battle of the Tchernaya on the 16th, the French had about 300 killed and 800 wounded.

Sebastopol fell on the 8th of September. Five thousand wounded were sent into the field hospitals on that memorable day. There were as many in the ambulances at the time; so that hospital accommodation for at least 10,000 patients was required. The huts and tents were crowded, and, ere long, hospital gangrene became very prevalent. Scurvy all the while continued to add a large quota to the sick list, and cholera had not ceased to affect the fresh arrivals.

The first rude weather in November found the French army as unprepared for another winter on the bleak heights of the Crimea as the preceding year; and as winter advanced, and no adequate preparations for the shelter and proper clothing of the men were made, the medical staff dreaded a renewal of all the horrors then experienced. Their fears were doomed to be realized. In consequence of the enormous crowding together of the men, both sick and well, under their miserable tents, or in their subterranean hovels, typhus fever acquired this season a power of intensity which hitherto it had not displayed, and added terribly to the amount of sickness and death from scurvy, bowel diseases, hospital gangrene, and frost-bites, not to mention chest and other disorders, aggravated, if not induced, by the sufferings and destitution to which the men were exposed from want of proper shelter, clothing, and food. Thousands upon thousands were every month sent off to Constantinople, and still there was never room enough in the camp hospitals for the thousands that were continually thrust into them. Within three months typhus alone caused 20,000 admissions, and 10,000 deaths. The medical men could do nothing but look on in despair; many of them fell victims to the pestilence. When peace was concluded, at the end of March, there is good reason to believe that the French army could not muster more effective troops than half its nominal number—such were the enormous deductions which typhus and scorbutic disease occasioned.

But it was not in the camp alone that fever caused such dreadful losses to the service. The hospitals at and around Constantinople had been allowed to become crowded to overflowing, and this, too, without any due precautions having been taken to secure a corresponding increase of ventilation, so as to maintain anything like purity of air for the inmates. They became, in consequence, perfect pest-houses, where not only the sick or wounded did not recover, but where disease was engendered, and where hundreds and thousands, admitted for other maladies, perished from typhus generated within the wards.

Far better, said Dr. Milroy, who had inspected the French hospitals, both in the camp and at Constantinople, that the sick (and especially the sick from fever) should be scattered about in large courtyards, or on any open, clean, and dry ground, and be put under canvass or any shelter, however imperfect, and with the want of every comfort around them, than that they should ever be accumulated together in buildings where there is not an adequate amount of space for each inmate, and where a pure atmosphere cannot be maintained by the constant renewal of unpolluted air by night and by day. Without this simple and essential measure every other precaution will be of no avail.

The total losses by death, of the French, during the campaign, may be estimated at little, if at all, short of 80,000. Of this number, 16,000, or a fifth part, were caused by the direct casualties of war—7,500 men and officers having been slain in action, and 8,500 having died of gunshot wounds and other injuries. Four-fifths of the deaths were, therefore, occasioned by diseases, chiefly of the zymotic class, which are all capable of being mitigated and controlled, if not entirely prevented, by a wise hygiene. Besides the losses by death, 65,000 were invalided from the effect of sickness or of wounds.

MEDICAL EDUCATION IN RUSSIA.

By a recent decree of the Emperor of Russia, students in medicine who have passed their examinations must, before being definitely nominated to the grade of medical officers of towns or districts, pass two years as *médicins aspirants* in an hospital in St. Petersburg. During this time they will receive practical instruction in surgery, pharmacy, analytical chemistry, pathological anatomy and microscopy, legal medicine, and medical police. They will have, under superintendence, to treat all classes of disease; and will have opportunities of perfecting themselves in practical midwifery and other branches of medical art. During this time they will be in the service of the empire, and will receive an annual salary of two hundred silver rubles. At the end of the two years they will be reported to the medical department of the minister of the interior, who will provisionally appoint them for another period of two years as town or district medical officers. Finally, a third year in which they will hold the appointment will be occupied in drawing up the medical topography of the place in which they reside and of the neighbourhood. They will be placed according to the relative merits of these *specimina eruditionis practice*; and this will be the basis of their future advancement.

SOME REMARKS ON THE PHYSIOLOGICAL ACTION OF THE TANGHINIA VENENIFERA.

By Professors A. KOLLIKER, of Würzburg, and E. PELIKAN, of St. Petersburg.

The famous poison-tree of Madagascar was described for the first time by Aubert du Petit Thouars in his 'Genera Madagascariensis,' under the name of *Tanghinia venenifera*. At a later period, Sir W. Hooker published a good description, with a figure of this tree, named by him *Cerbera Tanghin* (see Botanical Magazine, pl. 2968), so that nothing is wanted with regard to the botanical knowledge of this plant. On the other hand, the physiological effects of its poisonous parts have not been hitherto investigated. All we know is, that the fruit of the Tanghinia is a strong poison, and is used in Madagascar as an ordeal poison in the most strange and revolting way. The only experiment on animals made by Ollivier, showed that 12 grains kill a dog in some hours, but this experiment gave no further insight into the real action of the Tanghinia.

The poison used by us was the alcoholic extract of the leaves and small stems of the Tanghinia, prepared from dried specimens, which Prof. Pelikan had received from Count Seyderitz, of Mecklenburg. About one centigram of this extract was sufficient to show the full effect of the poison on frogs, when introduced into a wound of the back. It acted also when given by the mouth, but in this case a somewhat larger dose was required to produce a full effect.

The observed symptoms were the following:—

1. First of all, viz. in about five to fifteen minutes, the heart was affected and stopped in its action, in such a way that the ventricle became contracted and very small, whilst the auricles remained dilated, but were also paralysed.

2. The voluntary and reflex movements were at first not at all affected; but some time—from half an hour to one hour—after the paralysis of the heart, they became weaker and weaker, and gradually ceased totally, without any sign of spasms or tetanus.

3. In the third place the Tanghinia has a great influence upon the voluntary muscles, which become paralysed. This action begins very soon, and we have been able to show, with the aid of the *myographion* of Volkmann, that as soon as the heart is paralysed, the muscles also begin to lose their force. Nevertheless, the total paralysis of these organs is not observed till after six

hours and more, that is to say, when the muscles have been preserved in a temperature of 14° to 16° R. In a temperature of 4° to 6° R., the irritability of the poisoned muscles may last for double this time, as is usual with all poisoned muscles and nerves; but even in this case it disappears long before that of the non-affected muscles.

4. If muscles which have lost their irritability through the Tanghinia are put into a solution of common salt of from $\frac{1}{2}$ to 1 per cent., their power of contraction reappears after a certain time, but only when they have been preserved at the lower temperature of 5° to 6° R.

5. Lastly, the nerves also are *paralysed* by the Tanghinia, and, as far as we were able to pursue this question, under the same circumstances as the muscles, only perhaps a little earlier.

From all this it follows that the Tanghinia is a *paralyzing*, and above all, a *muscular poison*. As far as we have been able to follow its action, it resembles very much the Upas Antiar, only its power would seem to be a little less strong.—*Proceedings of the Royal Society.*

THE AMAUROSIS OF LAZINESS.

No other affection of the eye comes more frequently under care, whether in private or in hospital practice, than scrofulous ophthalmia attacking all the various tissues of the eye in turn. Its most frequent, and usually its earliest, seat is the palpebral and ocular conjunctive. Out of the total number of the cases treated by Mr. Ernest Hart at the North London Infirmary, at least two-thirds are either confined to the mucous membrane, or initiate there and pass on to the other structures. The cornea is the most frequently attacked after the conjunctiva, and the ulceration which so commonly occurs here, is frequently followed by opacity. This varies from dense leucoma to a slight want of polish only. It is stated by Mr. Hart to be due to the deposit of a granular lymph between the lamellæ in the former instance, and to the formation of a freshly and irregularly developed epithelial layer in the latter. The frequent result of leucoma is amaurosis, of a peculiar character—the amaurosis of laziness. The opacity of the cornea renders vision difficult with the eye affected, and hence the effort necessary is constantly evaded. The whole burden of vision is thrown upon the other eye, and hence it is overworked. From this two evils result: a confirmation of inefficiency and increased amaurosis in the eye, which is dimmed by the veil of opacity, and fatigue, weakness, and inflammation of the overtaxed organ. Under these circumstances, the attention of the surgeon is not to be led astray and fixed upon the inflammatory condition of the otherwise sound eye. Remedies applied to this are perhaps somewhat worse than useless. The cure is to be effected by the treatment here adopted—that of compelling its leucomatous fellow to assume a share of work, and so relieve the over-strain. The sound eye should be bandaged, and the necessary effort for vision with the other should thus be made compulsory. Vision rapidly improves, the retina adapting itself to the necessary effort with considerable facility.—*Lancet.*

SPONTANEOUS RUPTURE OF THE FEMORAL ARTERY.

A gentleman, 73 years of age, had been subject to gout for forty years; ten years ago had albuminuria, which entirely disappeared under treatment; for four or five years had been subject to giddiness; and had had numbness and uneasy sensation in his lower extremities, with diminished muscular power; for three or four months had had occasional attacks resembling slight angina pectoris. On the 13th of March he was seized with a fainting fit. He had felt weak and out of order for two or three days previously, and had, during

that time, had some pain in front of the upper part of the left thigh; but there was no swelling or tenderness. On the 14th a hard, brawny, diffused swelling had appeared in the anterior half of the upper third of the thigh, with a decidedly prominent spot over the rectus femoris muscle, about four or five inches below Poupart's ligament. He fainted twice on this day. The pulse was quickened, and weaker than usual; the sounds of the heart were natural, but its action feeble; the urine was loaded with albumen. On the 15th ecchymosis had made its appearance on the front of the thigh, the swelling had increased, and there was evident pulsation in the prominent part of the swelling and around it. No pulsation could be felt in the tibial or popliteal arteries. He gradually became weaker; delirium set in on the 17th; and on the 18th he died, at eight, a.m. The albumen had entirely disappeared from the urine before his death. There was no anasarca. All operative interference was rendered inadmissible by the shattered state of the patient's health. Mr. Casar Hawkins saw the patient, in consultation with Mr. Leggatt, and was present at the autopsy, twenty-four hours after death. The general surface of the body was very pale. The circumference of the left thigh, at its most prominent part, was five inches greater than that of the opposite limb. There was slight œdema of the left foot and ankle. The ecchymosis extended downwards nearly to the ankle, upwards above Poupart's ligament in front, and over the glutei behind. On cutting through the skin of the thigh, the tissues beneath were gorged with blood, and loose coagula lay among the muscles. The sartorius, rectus femoris, vastus internus, and the adductors, were more or less broken up by the effused blood in the upper third of the thigh. A large perforation, about the size of a fourpenny-piece, was discovered in the femoral artery, just before its entry into the aponeurotic sheath of the adductors. No trace of any aneurismal sac could be found. Small fragments of the fibrous coat of the artery were seen in the cellular tissue around the opening. The coats of the artery above the opening were much diseased, as were those of the profunda also. The external iliac was healthy. The pericardium was universally adherent to the heart, and the adhesions were, in places, converted into cartilage and bone. There was a large accumulation of fat at the base of the heart; but the structure of the walls, as well as of the valves, was healthy, or nearly so. The kidneys were congested and granular; the left was very much contracted, and the capsule very adherent. The preparation had been put up at the Museum of the College of Surgeons, and Mr. Quekett had reported to Mr. Leggatt, that "the opening in the artery had a rough and gnawed appearance, as if proceeding from ulceration. Under the microscope, atheromatous deposit was discoverable, with ossific plates. The artery above and below exhibited the same state of disease." There was a good deal of thickening of the external coat in the neighbourhood of the opening, but no appearance of increased vascularity. The case is interesting, as showing that ulceration or softening (whichever might have been the cause of the laceration) of the coats of a large artery, surrounded by dense and unyielding structures, may give rise to perforation, and fatal extravasation into the surrounding tissues, without the formation of any aneurismal sac. Mr. Leggatt stated that he had not been able to meet with the record of any similar case, and appealed to the members present to mention if any such had come under their notice.—*Med. Times and Gazette.*

TREATMENT OF EMPYEMA, AND THE OPERATION OF PARACENTESIS THORACIS.

Dr. Peacock drew the attention of his class recently at St. Thomas's to the somewhat unexpected fact, that, in patients where a communication has been established

in the chest between the pleural cavity and bronchial tubes, the patient may still do very well; air does not necessarily enter the pleura! A patient, in other words, may present the usual auscultatory signs of pleuritic effusion, and the same day be suddenly seized by violent fits of coughing, followed by the expectoration of large quantities of purulent matter containing little or no air. The empyema, so to speak, may break internally or into the bronchi, and the parts heal—a more desirable termination of some of these cases than a surgical operation externally. Dr. Addison speaks strongly also against this latter surgical operation if it can be avoided; the fluid in recent pleuritis, he thinks, is serous, but afterwards air gets into the pleura and it becomes purulent, and goes from bad to worse. The first tapping finds the chest with serum that might be cured by medicines; the second tapping of the chest, and all subsequent tapplings, give rise to an irritating issue of pus, and the patient becomes exhausted, from a bad kind of fistula or fistulous opening, not necessary in the first instance. The best physicians at the Borough hospitals indeed rather discountenance “paracentesis thoracis,” except in cases where the accumulation is probably very large, when the dyspnoea is so urgent as to threaten life by immediate suffocation; but even then Dr. Peacock has shown in some cases at St. Thomas’s an immensity can be done by good treatment. There may be escape of air also into a very limited portion of the pleural cavity, as in one case under the care of Dr. Peacock; but such a patient may get completely well. In three other cases, though a communication existed, no air entered, and the patients recovered also. A curious case occurred to Mr. Stanley at St. Bartholomew’s:—A patient, apparently in good health, had what was thought an abscess in the loins; Mr. Stanley opened it, but opened into an empyema!—*Medical Circular.*

ON THE EMPLOYMENT OF GUARANA IN OBSTINATE DIARRHŒA.

Dr. Hervé, of Lavour, calls the attention of the profession to the employment of a substance which is in common use in South America, and particularly in Brazil, where the cases of diarrhoea and dysentery present themselves in a very severe form. Those who inhabit that country know that every family has a little provision of guarana, and that as soon as any one is seized with diarrhoea or dysentery, a little of the substance is scraped, and infused in a cup of boiling water, which is swallowed at once, with or without sugar. Dr. Hervé, following the advice of Dr. Mialhe, has given it in infusion in sugared milk, and it is then much more agreeable, and does not lose its special characters. For the last five or six years he has employed this medicine daily; it has never failed him in the most obstinate cases of idiopathic diarrhoea, and almost always it has ameliorated the condition of the patient, even in the most serious symptomatic cases. The guarana or *paulinia* has been also employed in the treatment of headaches; and it has succeeded in some cases connected with gastric derangement, but it has failed in others. The guarana, as a medicine, was first described by Cadet de Gassicourt, in 1817, from a fragment which had been brought to him from Brazil, by an officer attached to the French embassy. On this specimen a ticket was fixed, importing that this substance was much employed in Brazil for cases of diarrhoea and dysentery. Towards the close of the year 1822, an inhabitant of the same country, M. Gomes, sent to MÉRAT a complete specimen; it was a mass presenting the form, colour, and volume of a sausage. There was joined to it a very rough bone, intended to act as a rasp, and which is always sold with the medicine. The learned botanist, Martius, afterwards occupied himself in discovering the plant which yielded the guarana, and he classed the climbing shrub which furnishes the gua-

rana seeds among the Sapindaceæ, under the name of *paulinia sorbilis*, in consequence of its employment as a drink. It may be used in the form of pastilles, syrup, pills, tincture, and pomade, as well as in powder, and in combination with chocolate.—*British and Foreign Medico-Chirurgical Review, and Bulletin Général de Thérapeutique.*

DEATH OF PROFESSOR HARRISON.

On Friday morning, April 23rd, æt. 62, ROBERT HARRISON, Esq., Professor of Anatomy and Physiology in Trinity College, Dublin. The cause of his death was an apoplectic seizure, induced, most probably, by a weakened condition of the heart. He was A.M. and M.D. T.C.D., 1820; L. and F.R.C.S.I., 1816; M. and F.R.C.S. Eng., 1815. He was Surgeon to Steevens’ Hospital, Physician to the Central Lunatic Asylum at Dundrum, and Honorary Secretary to the Royal Dublin Society; but perhaps best known as the author of “Harrison’s Dissector,” and “Harrison’s Anatomy of the Arteries.”

DEATH OF M. CHOMEL.

We regret to announce the death of M. Chomel, the eminent physician of the Hotel Dieu, of Paris. He died on the 9th inst., at his country house, after a long and painful illness, which had for the last few years prevented him from attending to practice. It will be recollected that M. Chomel resigned his position at the Hotel Dieu at the fall of the Orleans family, to whom he remained faithful to the last.

COLLEGE OF SURGEONS.—The Jacksonian Prize has been awarded to Alfred Poland, Esq., of Guy’s Hospital, for his essay on “Gunshot Wounds and their Treatment.”

APPOINTMENTS.

His Excellency has been pleased to appoint Professor Law, to be Visiting Physician to the Central Criminal Lunatic Asylum, in the room of Professor Harrison, deceased.

At a Meeting of the Directors of the Cow Pock Institution, held on Thursday, the 32nd of April, at 45, Upper Sackville-street, HANS IRVING, Esq., M.D., President of the College of Surgeons, was unanimously elected a Director in the room of Robert Moore Pelle, Esq., M.D. deceased.

TO ADVERTISERS.

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CASE OF VESICAL CALCULUS OF LARGE SIZE.

LITHOTOMY SUCCESSFULLY PERFORMED.

By HENRY THOMPSON, M.D.,
Tyrone Infirmary.

I publish the following case of lithotomy, because I believe the calculus, of which an engraving is annexed, to be of unusually large size in proportion to the age of the patient, and because the disease being rare in this part of the country, and the operation more so, I think it desirable that any instances of either occurrence should be recorded.

The patient is a boy of ten years of age, named Mark Droogan, who was admitted into the Tyrone Infirmary on the 20th of March, 1858. His countenance was sunken, sallow, and expressive of suffering and anxiety. He stood with his body bent forward, and his hands generally pressed on the lower part of his abdomen, moving about with an obvious degree of caution, as if afraid of the consequences of any sudden shock. He complained of severe pain, referred to the hypogastric region, shooting forwards along the penis, and backwards towards the sacrum, almost constantly present, but particularly severe during and for a short time after emptying the bladder, which he was forced to do every ten or fifteen minutes, the call being so imperative that the urine passed off involuntarily if it were not at once attended to. The pain was not peculiarly great in the glans, nor was the prepuce elongated, but the whole organ was more developed than is usual at this age. Neither was the pain very much greater after the evacuation than during it: the symptoms differing, in these respects, from what is usually observed. In bed he lay on his right side; when he attempted to lie on the other, or on his back, he felt as if something fell against "the water-passage in his bladder," to use his own expression; bringing on an immediate call to make water, with complete inability to do so until he changed his posture, and by a series of

manœuvres—such as turning over on his right side, lifting up his left leg, and pressing strongly with his fingers against the anus—he managed to remove the obstruction. His usual posture in making water was on his knees, leaning forward on one hand, and pressing against the anus with the other. These symptoms were subject to paroxysms of aggravation, with intervals of comparative but far from complete relief, sometimes lasting two or three weeks. They did not seem to be affected by exercise, nor had he ever hæmaturia, except on one occasion, a long time ago, when a few drops of blood appeared.

From infancy he had not passed water like other children, having always suffered from some irritation; but until within the last two years, though occasionally suffering very severely, he was able to go to school, and play about with other children. Within that period he has been almost constantly confined to bed, from time to time suffering so intensely, that his life had become a burthen to himself and his parents, and they were all very willing to risk it for a chance of relief.

On admission, I passed a small silver catheter with some difficulty, and felt an indistinct grating. He was then ordered a hip-bath, and ten drops of Battley's sedative.

March 27th.—Having procured a suitable sound, I passed it this morning, and at once felt the stone. The urine is of a pale colour, acid reaction; specific gravity, 1.010; and contains a deposit of mucus mixed with quantities of pus-globules and epithelial scales, but without any crystalline appearance.

March 30th.—The bowels having been freed by an enema, and the patient placed perfectly under the influence of chloroform, I operated according to the method pursued by Irish surgeons, holding the staff myself, and dilating the incision in the prostate and neck of bladder by means of the straight blunt-pointed lithotome bistoury. All the urine in the bladder, which was not more than an ounce, escaped on the introduction of the staff, and the rectum was found full of fæces, notwithstanding the action of the enema. The transver-

salis perinæi bled so very freely, that I was advised to put a ligature on it before proceeding further. I pushed on into the bladder, however, without delay, and with my left forefinger on the calculus, felt that the principal difficulties had been surmounted. As I perceived the stone to be of large size, I used the bistoury as freely as I thought necessary, and then withdrawing it, passed a polypus forceps on my finger, and seized the stone, but in the long diameter, in which position I soon found its extraction to be quite impracticable; so I changed the forceps for that usually employed, and by means of it I caught it right at the first trial, and then extracted it with comparative ease, dispensing altogether with the use of the gorget. The whole proceeding occupied about four minutes, the patient being perfectly insensible all the time. During the extraction, and for some time afterwards, the peculiar spasmodic action of the rectum, which has been attributed to chloroform, and by which, in this case, the feces were expelled, and the mucous membrane protruded, was observed. The finger was then passed into the rectum, which was found to have escaped injury; and some of the debris of the calculus, which had been crushed on one side by the pressure of the forceps, was washed away. The bladder was examined, and found empty; and then a canula, made of the end of a full-sized gum-elastic catheter, with an additional opening cut in it, and armed with tapes to secure it—but without any chemise, as all appearance of hæmorrhage had ceased—was introduced into the bladder, and secured to a bandage round the pelvis. The patient was then placed in bed, and ordered ten drops of Battley's sedative.

Four hours after the operation he felt quite comfortable. A remarkable change for the better had taken place in the expression of his countenance, and he had quite lost his former symptoms. Urine flowing freely through canula.

April 10th.—The canula was removed on the third day; the urine has since flowed freely through the wound, now reduced to a small opening in the centre of a cicatrix which may be called linear. He has not had a bad symptom since the operation.

On the same evening, about 6 p.m., I was called to him suddenly. He had been seized with severe pain in the region of the bladder, extending along the penis. Some dark clots had been expelled with urine, from both wound and urethra, and were found on the sheet; some of the clots were quite decolorized, and mixed with calcareous matter. He was in bed, on his hands and knees, somewhat relieved since the passage of the clots, but still in pain. A dark clot projected from the opening in the perinæum, which broke when I attempted its removal, the orifice remaining plugged.

On considering what was best to be done, I concluded on waiting until the urine had accumulated in sufficient quantity to excite the contractile power of the bladder, which, I expected, would

free the opening in the most effectual manner from within. A hip-bath was ordered, *pour passer le temps*.

On visiting him two hours after, I found, as I expected, that a sudden burst of urine had carried all away with it. The opening in the perinæum was clear; some urine had also come away per urethram; and he was quite free from pain.

April 11th.—Slept all night; passed what he calls "a good sup" through the urethra; quite tranquil, and free from uneasiness.

12th.—Has passed all his urine through urethra since last night; can retain it for an hour, and passes it without pain.

13th.—Has had some return of irritation to-day; complains of the stream stopping suddenly, with pain of a cutting character, referred to glans penis. A little urine passed through wound to-day; bowels, which have hitherto been regular, confined. Ordered half-an-ounce of castor oil.

April 14th.—The urine, now capable of being collected in a glass vessel, is of a pale colour and neutral reaction; specific gravity, 1.020; deposits a thick,ropy, whitish mucus, containing pus-globules, but in smaller proportion than before operation; there are also particles of calcareous matter; and each drop examined under the microscope displays crystals of triple phosphate, with an occasional one of oxalate of lime. He was allowed up to-day, for the first time.

April 18th.—Continues to complain of pain after passing water, and has passed several fibrinous shreds, with granules of calcareous matter, and a point or two of coagulated blood.

Infus: Buchu, $\mathfrak{z}$ l.

Acid Nitric, dil: m. v.

Tinct: Hyosciami, m.xv.

Ter die.—No urine from wound.

April 24th.—Urine still deposits ropy mucus, with small clots of blood, and granules of white sand; pain still after the evacuation. He can now keep his water for hours, and is not disturbed more than three times at night.

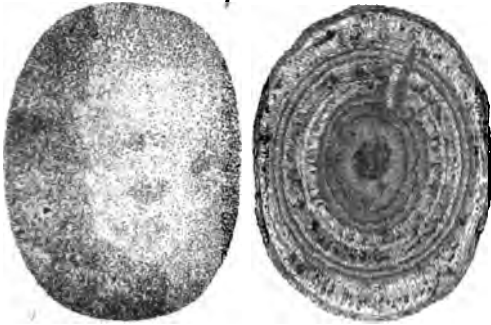
30th.—Much less pain last few days; deposit continues the same in character, but in smaller quantity; urine acid.

May 2nd.—Pain after passing water diminishing daily; urine more healthy, and proportion of mucus much less; still some calcareous particles, with particles of blood adhering, appear at the bottom of the glass every morning. He can retain his urine now for several hours, and passes it in the erect position, which he could not do until lately.

4th.—Urine for the first time free from calcareous matter; mucus in small quantity now, and has lost its ropy character. He has no pain, but the urine still stops suddenly, towards the end of the evacuation. General health excellent.

5th.—Urine may now be said to be quite healthy; specific gravity 1.020, of natural colour,

with a mere cloud of flocculent mucus, acid reaction, and free from crystals of any kind. He is entirely free from any uneasy sensation, except at the end of each evacuation of the bladder, when the stream ceases rather abruptly, and a slight feeling of uneasiness is perceived, but for a very short time, and not at all like what he used to feel. He is to go home now, as soon as opportunity offers.



The calculus, of which the accompanying woodcut gives a very exact representation, consisted chiefly of oxalate of lime, exhibiting some slight traces of lithic acid; it was one inch and seven-eighths long by one and three-quarters wide, and measured four inches and a half in circumference. It weighed from fifteen to twenty grains above an ounce. I could not be more accurate, as some that had been broken off was lost. A thin membranous film, coloured with blood, covered it, and could be raised off without tearing it; under this the surface appeared covered by minute crystals, that sparkled in the sun, and under the microscope displayed the tetrahedral form characteristic of the crystals of oxalate of lime, when only one side can be exhibited.

ON CUTANEOUS PIGMENT EXCRETION.

By ROBERT D. LYONS, M.B., M.R.I.A.,
Physician to Jervis-street Hospital, &c., &c.

My attention has been called to the interesting paper of Professor Banks, in a recent number of the *Dublin Quarterly Journal of Medicine* (*Dublin Quarterly Journal of Medicine*, No. L., May, 1858), and I am induced to think that a few brief memoranda respecting a case of cutaneous pigment excretion, having some similarity to those so graphically detailed by him, may not be without interest.

The case to which I refer is, in some important respects, different from any hitherto placed on record, though it agrees with those so well summed up in the paper of Dr. Banks, in the essential character of presenting pigment excretion by the cutaneous surface. It occurred in the person of a lady, aged about 57, the mother of a healthy

grown-up family. She was of robust constitution, and had had excellent health till the last few years. She had lived much in the country all her life, and was of very active, bustling habits, and possessed a clear and vigorous mind. She is still of unusually youthful aspect for her years. About four years since, while then resident in the country, and apparently under the same hygienic conditions to which she had been long used, she gradually fell into a weakened state of health. She lost appetite, wasted, became languid and weak; and though presenting no symptoms of organic disease, her state became such as to cause much alarm to herself and her friends.

Two phenomena in her case especially influenced her mind: a general, but slight, discoloration of the surface, visible on most parts of the body, but particularly observable on the hands and fingers and on the thighs. Being a person of remarkably neat and cleanly habits, she early noticed that her linen became rapidly soiled, and as if lightly sprinkled with a sooty powder. Her hands, and especially the tips of her fingers, were visibly blackened—not uniformly, however, but as if they had been in contact with some black powder. She complained that it was impossible to keep her hands clean; that though she washed them twenty times a day, they always looked as if she had been a Cinderella, and that her occupation was to poke her hands into the coals all day.

The other phenomenon was, the constantly-recurring formation, during a couple of months, of small superficial purulent deposits, most commonly on the fingers, but also on the body, and on the inside of the thighs. These purulent collections formed on almost every finger of both hands, two or three being generally attached together; they likewise formed on different parts of the same finger, and often recurred in the same place. They were not attended with very much pain, seemed covered only by cuticle, and when opened, or when they burst after having been poulticed, gave exit to a thin sero-purulent matter. This state was sufficiently alarming, taken in conjunction with the languor and prostration in a system habitually active and vigorous, and determined her to seek other advice than a country neighbourhood afforded. She accordingly came to Dublin, and placed herself under my charge. Her own impression was, that there was a general deterioration of her system, and a disordered state of her blood in particular; all which she summed up by saying, in more forcible than elegant terms, when she placed herself in my hands, "that she was all rotten."

On examination, I found the appearances very much as above described. The pulse was quite small; the tongue was foul and coated; several of the fingers on both hands presented the purulent deposits described above, and on the remaining ones the black pigmentary excretion was visible. I ascertained, on inquiry, that the menstrual function had ceased about a year or two previously.

The most careful exploration of the various great cavities gave no evidence whatever of organic disease; and yet it was evident, from the patient's state, that the progressive weakening of the system could have no other than a fatal issue, sooner or later, if not arrested by the aid of medicine.

I treated the case by the use of a very generous diet, with a liberal allowance of wine, and the internal employment of powerful and concentrated tonics, combined with iodide of potassium as a depurative. The purulent collections required to be opened and re-opened repeatedly. Suffice it to say, that in about six weeks or two months a most satisfactory convalescence was established. The appetite returned; the frame was well nourished; the purulent formations had ceased; and the strength was almost completely restored.

During this time there was some diminution in the amount of pigment excretion by the skin, but it never wholly disappeared; and from that time to the present it has been more or less prevalent, though in other respects the patient enjoys excellent health and strength.

How shall we interpret this case? In the twelve cases of which Dr. Banks has furnished us with so interesting a resumé, it is impossible not to recognise some connexion with deranged menstrual functions in the majority. The ages vary from 15 to 23; in my patient the climacteric was passed, and menstruation had ceased. Shall we regard the pigment excretion as an effort of nature to continue the constitutional elimination? It is evident that we want further experience of these interesting and singular cases, before we can positively decide on their pathology.

BELFAST CLINICAL AND PATHOLOGICAL SOCIETY.

At the annual meeting of the Belfast Clinical and Pathological Society, held at the General Hospital, on Saturday, 1st May, after a highly satisfactory statement of the finances for the past year, the following officers for the ensuing session were declared:—*President*, Mr. Browne; *Vice-Presidents (resident)*—Dr. Thomas Reade, Dr. Murney, Dr. Seaton Reid. *Vice-Presidents (non-resident)*—Dr. Graves, Cookstown; Dr. McMechan, Whitehouse. *Treasurer*—Dr. Halliday. *Honorary Secretaries*—Dr. Cuming, Dr. Wales. *Council*—Dr. Pirrie, Dr. Dill, Dr. Patterson, Dr. Heaney, Dr. Bryce, and Dr. Gordon.

Dr. JAMES MOORE, the retiring President, delivered the following address:—

GENTLEMEN—At the close of each session, according to our usual custom, and as a proper mark of respect to the members, a few observations may be permitted from your President, who trusts, in their imperfect delivery, to your usual consideration and indulgence. Our proceedings during the

present session have been such as might have been expected from the high professional character and large experience of the gentlemen composing this body. The attendance of members and of students has been indeed good; the mutual interchange of valuable information has been considerable; the advantages of friendly personal intercourse, produced and perpetuated by our meetings here, it is superfluous to enlarge upon. The specimens of morbid structure exhibited, the number of patients presented with interesting forms of disease or malformation—amongst the latter, the remarkable case of Monsieur Groux, the action of whose heart was visible, owing to a deficiency in the anterior wall of his chest—the numerous instructive cases from our country correspondents read, and the results of chemical examination detailed to you, will suffice, without eulogy of mine, to convince the profession at large of the practical utility and business character of this Society. It is from the collated results of each succeeding session that our growing importance and increasing professional usefulness may be safely inferred. Nothing is of greater importance to us than that every successive session should exhibit an increased amount of pathological and clinical information, collected by individual exertion of your members. In this respect we have good reason to regard the session now about to expire, without fear of its suffering by comparison with any that have preceded it.

On the occasion of opening the present session, I enlarged sufficiently upon the important aid rendered by art to pathological science. I shall here only repeat my request to such of our students who may feel inclined to exert their talents in the application of art to the service of their profession, to lose no time in commencing their labours, since of the fine arts may be emphatically asserted, in particular, what the proverb enunciates of arts in general—namely, that art is long (or, in other words, is difficult), while life is short. It is right to observe, in connexion with this branch of the subject, that our museum is enriched with additional casts of diseased structure, with many models in plaster and in wax, coloured after nature, and admirably truthful, to which I need not more particularly direct your attention.

In hopefully looking forward to the still more enlarged importance and usefulness of this Society, I may take this opportunity to remark on the service our members may individually render to the profession and the public, by their exertions in the several branches of professional inquiry, until we again re-assemble in this room. The strict rule which properly confines our discussions here to clinical and pathological topics, does not exist for us in our individual capacities elsewhere. Elsewhere, therefore, I think it right and becoming in our profession to bestir itself, individually, in matters of moment that concern the public health, that, by so doing, our profession may not merely

set itself forth as a humane, liberal, and learned profession, but take the proper rank to which it is fully entitled, as a governing opinion of the State. The various predisposing causes by which public health is endangered are surely proper subjects of inquiry to a profession continually called upon to grapple with the fearful results of these very predisposing causes. Whether we regard the poisoning of human life by heaping up mounds of scarcely covered dead under the very windows of the living, or the constant streams of pollution emanating from open drains or imperfect sewerage, or the noxious gases of pestilential factories, whose smells and fumes are the warnings appointed by nature to induce man to remove them to a distance from his neighbourhood; all these are very fit and proper subjects for the consideration of professional men, who cannot forget that they are likewise public-spirited citizens. The rescue of human life—especially of the lives of those whose daily labour is our national wealth—from the depressing and destructive agencies of damp, ill-ventilated habitations, of defective sewerage, inadequate supply of pure water, and many other less destructive agencies, is especially our business; and I should insult the Society, were I to do more than express my convictions of their readiness to do all that in them lies to remedy such evils, as far as it is possible, by expression of enlightened, humane, and well-considered professional opinion, to do so. The oppressive voluntary taxation, as I may call it, of habits prejudicial to health, though not immediately or suddenly endangering life, are worthy of our serious consideration. I am led to animadvert upon one of these, from having my attention called to several cases of chronic disease produced by excessive indulgence in the practice of smoking tobacco.

I am not about to enter upon the wide field of discussion which the almost universal use of tobacco invites. I am neither prepared, with Pereira and Christison, to assert that no well-ascertained ill effects have been shown to result from the habitual practice of smoking, nor, on the other hand, to condemn unreservedly the moderate use of tobacco, in all cases, times, and places. A luxury indulged in more or less immoderately by so large a portion of the human race, and which, next to salt, is supposed to be the article most extensively consumed by man, must be able to adduce numerous arguments, more or less tenable, for its extended use. For its abuse, however, no arguments can be tenable; and it is with its abuse that we are called upon professionally to deal. We find smoking begins with boyish bravado, or weak compliance with absurd solicitation; proceeds by degrees to an offensive custom, and resulting in a confirmed habit, which it is hardly too censorious to stigmatise as a vice. To trace the progress of this deteriorating habit, from the first whiff, productive of incontrollable nausea or ill-concealed disgust, to the period, not very remote, of the

constant craving, demanding the ever-recurring pipe; following it still downward till the habit merges into the vice, the vice into disease, we have especial reason to lament the increase of the habit of smoking among the rising youths of the lower and middle classes in our town. The prevalent practice of smoking is the more especially dangerous in this, that its agency in lowering the tone—mental, moral, and physical—of the animal economy, is extremely insidious. By degrees the disease—for such it must be considered—ripens into various forms, which compel the interference of the physician; and not unfrequently medical assistance is unavailing to rescue the sufferer from the consequence of habitual indulgence in this, to him, daily luxury of life. In my own circle of friends, a professor of eminence, an original thinker and fine reasoner, and one who had adorned the literature of our profession, fell a victim to the immoderate indulgence in smoking, a resulting cancerous affection of the tongue being, by the victim himself, attributed to this infatuation. I need hardly remind you of the frequency of epithelial cancer among the poor of these islands, the result, as I believe, of the acrid, irritating, empyrhumatic oil absorbed into the system from the short black tobacco pipes in use among the humbler classes. The delicate nervous organization of the eye is injuriously affected by tobacco in two ways—first, by the direct application of irritating vapours to so delicate an organ; secondly, by the participation of the optic nerve in the depression of the nervous energy throughout the frame. In rude and primitive conditions of life—as that of the hunter, whose high-wrought nervous actions may require to be toned down—or in cold, damp, or hot climates, in marshy districts, or with insufficient food or shelter, and under other exceptional circumstances of daily life, the use of tobacco may be comparatively innocent, and in some cases may supersede the habitual resort to wine, opium, or spirituous liquors, and thus may claim the privilege accorded by common consent to the lesser evil. As a means of assuaging the pain of excessive fatigue of labours, of mitigating the pangs of hunger, or of subduing mental distress—among those, especially, not over-burthened with the good things of this life—there appears much to be forgiven in the use of tobacco. At all events, an indiscriminate censure of it, even if it were just, would be ridiculous. In most countries where tobacco is now extensively used, its use was prohibited by the ruling powers, at one period or another, under stringent penalties; and wherever its use has become almost universal, we find, on consulting historical records, that the prohibitions were the strongest and the penalties most severe. But in town life, and among our rising youth especially, none of the conditions which render the habit of smoking excusable, under certain extenuating circumstances, can be said to exist. There is not even the excuse of want of variety, or the

sinking of the spirit, as in remote and solitary places, which makes smoking partly a sedative, and partly a mechanical habit of passing away the tedious time. It is not necessary for our rising youths to dissipate mind and body in this manner. Self-respect will suggest some more active and ennobling employment for mind and hand, or at least will induce the well-disposed to refrain from countenancing, by presence or participation, the bad example of others. When we consider that in the act of smoking of one quarter-ounce of tobacco, there may be imbibed into the system two grains, or more, of one of the most subtle of all known poisons—scarcely inferior in virulence to prussic acid, a single drop being sufficient to kill a dog—one might as certainly expect immediate symptoms of disease from tobacco smoking, as from any other poison, did not nature come to the rescue, by adapting the system to the unnatural conditions imposed upon it. Nicotine, however, is not the only poisonous principle of tobacco; the oil distilled through the tobacco-pipe, as in a retort, is not only disagreeable and acrid, but narcotic and actively poisonous. Under its influence reptiles die instantaneously, and some of the wild people of the earth wisely employ it for that purpose.

I shall dismiss this disagreeable subject, and refer to a matter more immediately connected with the dignity and interests of our body. In contemplating the progress of the profession at large in public estimation, we cannot fail to be struck with the increase of individual pursuit of special branches of medical, surgical, and pathological science. This division of professional labour has reached such a pitch in our metropolitan cities—Dublin, London, and Edinburgh—that the profession and the public are equally advantaged thereby. In consultations, as we have constant occasion to know, certain great names are appealed to, as of the highest authority, in the last resort. Individual members of the profession, it is also observed, who are shining lights in their speciality, are frequently the most generally accomplished in other respects. This is only what may be expected, since he who confines himself to one chosen department of his profession, will not only be more likely to excel in that, but have more leisure for excellence in other things. This town, though large, and rapidly increasing, may not yet be large enough to admit of that metropolitan division of labour which we see in great cities; and it must be admitted, that we, who depend on general practice, must be content to practise generally. Yet I would wish to observe, that I think a tendency to special pursuit, in such of our body as are of my way of thinking, must be of signal advantage, alike to the individual, his professional brethren, and the public. Medical men can have no motive to refuse acceptance of that leading truth of our age, that progress in the arts and sciences is a direct result of the division of labour. As special eminence in particular branches becomes more ge-

neral, our profession, in theory at least, might be expected to become, if not less competitive, more co-operative, since it is but reasonable to suppose, that as each became an authority in his peculiar walk, his professional brethren would defer to his authority therein, and a mutual deference and respect arise from special individual eminence. Of course we must expect that this devotion to one speciality will be limited, and in some degree hindered, by the circumstances of our individual positions. I only repeat, that the division of professional labour, where practicable, is desirable, and tends to the advancement of the dignity in which is involved the interests of our profession.

Gentlemen—for the honour you have done me, for the uniform courtesy and kindness which you have always shown towards me—I heartily thank you. I now leave this chair to an able and worthy successor; and my sincere hope is, that this Society may continue to prosper—prosper it must—because it is useful, and useful because it is practical.

Dr. Moore then left the chair, which was taken by Professor Ferguson; and thanks were voted to the President and the other officers of the Society.

ON THE ELECTRICAL NATURE OF THE POWER POSSESSED BY THE ACTINÆ OF OUR SHORES.

By ROBERT M'DONNELL, M.D., M.R.I.A.,
Lecturer on Anatomy and Physiology in the Carmichael
School of Medicine, Dublin.

After referring to the well-known phenomena manifested by electrical fishes, and to alleged instances of numbing effects, but of doubtful electrical nature, produced on the naked hand by the contact of certain marine Invertebrata, the author describes his own observations and experiments with the Actinæ as follows:—

Suppose that into a vessel containing some actinæ well expanded, and apparently on the look-out for food, some of the tadpoles of the common frog be introduced, these little creatures do not, like many freshwater fishes of about the same dimensions, immediately die; on the contrary, the salt water seems to stimulate their activity, they become very lively and swim about with vivacity. One of them may not unfrequently be observed to make its way among the tentacles of an actinia and get off again quite uninjured; it may even for a time nestle among the tentacles with as much impunity as if it were only in contact with a piece of seaweed; but should the tadpole have the misfortune to fall in with a more voracious actinia, the reception it meets with is very different. Sometimes, when by an incautious lash of its tail it touches even a single tentacle, it may at once be laid hold of, and in the violent efforts which it forthwith makes to break loose, often more fully brings itself within the reach of other

tentacles, by which it is seized and overpowered. Occasionally, however, after having been thus seized, the tadpole by its superior activity succeeds in effecting its escape, and when it does so, it seems for a time singularly excited; it twists and writhes and wriggles through the water, so as to leave no doubt that some very remarkable influence has been exerted upon it.

These observations are no doubt familiar to all who have studied the habits of these animals; for although the tadpole seems more susceptible of the peculiar stimulus which the actinia can communicate than most of those creatures which are ordinarily cast in its way, yet the same occurrences take place with the small crustaceans, &c., which are abundant in sea-water. Indeed no very close attention is necessary to perceive, that while on some occasions these little animals may creep to and fro over the surface and among the tentacles of the actinia, at other times they are seized and killed with the greatest promptitude.

It remained to be determined what is the exact nature of the power which the actinia has been thus found to have under its control. If it seized its victim by a simple mechanical effort, why should the tadpole be so agitated for some time after having escaped from its grasp? No peculiarly viscid secretion could be detected on the tentacles, nor could any decided reaction be discerned on their surface differing from the feebly alkaline condition of the sea-water in which they were placed; moreover, the power of the actinia seemed often to be exerted with too much promptness to be compatible with the notion of the formation of a poisonous or stinging fluid over its surface. On the hypothesis that it is an electrical power with which the actinia are endowed, it is obvious that the existence of animal electricity in them ought to be experimentally demonstrable by its physiological effects, inasmuch as these phenomena are the most striking which animal electricity is capable of producing in common with other electricities derived from different sources.

The following experiments, in which the frog's limb was used as a galvanometer, (the limb of this animal being, as is well known, an instrument of extreme delicacy for this purpose,) seem satisfactorily to establish the fact that the common actiniae of our shores are gifted with electrical power.

1st. Having prepared the lower limb of a lively frog after the mode described by Matteucci, by stripping off the skin, dissecting out the sciatic nerve from among the muscles of the thigh, and then cutting off the thigh a little above the knee, so as to leave the nerve uninjured and as long as possible, the limb was laid on a small piece of glass, so that the nerve hung down over its edge. The pendent nerve was lowered into the water and gently brought in contact with the tentacles of an expanded actinia. From the first or the second, or even several, possibly no effect may result, but

arriving at last at one more vigorous than his neighbours, smart muscular contractions follow as he grasps the nerve in his tentacles, and the toes are thrown into active movement.

2nd. The next experiment, although of precisely the same nature as that first detailed, renders the effect produced on the muscles of the frog's limb more striking. A large and lively frog is killed, the skin is stripped off, and the viscera being removed, the body is cut off about the middle; a knife being slipped behind the lumbar plexus of nerves, the pelvic bones and contiguous soft parts are cut away, so that the lumbar vertebrae remain connected with the lower extremities merely by the nervous cords passing to each limb. Thus prepared, the limbs are laid on a thin piece of board, so that the vertebrae hang over its edge dangling by the undivided nerves. The piece of board is placed floating on the surface of the water in which are the actiniae, and is slowly pushed over within reach of an active one. Immediately that the actinia seizes the morsel thus offered to it, contractions are observed to commence in the thigh, extend to the calf, and soon the toes are in movement.

3rd. In order to set aside the supposition that these muscular contractions might be the result of chemical or mechanical irritation applied to the extremities of the nerves, it became necessary to devise a modification of the foregoing experiments; for although irritants, such as turpentine, croton oil, ammonia, friction with a nettle leaf, &c., were applied to the nerves without producing any effect like that obtained from the actiniae, it seemed still possible that the contractions might be due to some other agent than electricity.

The following experiment seems to remove all doubt. A piece of copper wire, a few inches long, was coated with sealing-wax, except about half an inch at each end; the ends were rubbed clean with sand-paper, one of them was thrust into the lower part of the spinal canal of a frog prepared as in the last experiment, while the other, which was to be offered to an actinia, was passed into a portion of the frog's intestine put on like a glove; for the actinia does not seize vigorously metallic substances. The limbs of the frog with the nerves and vertebrae attached, are laid on a piece of board, while the copper wire, which is curved, arches over the edge of it; so that the end covered with frog's intestine can be readily brought within the reach of the actinia. Having waited for a few minutes until the muscular contractions excited by thrusting the wire into the spinal canal have ceased, (and they are in general very transient,) the board is placed floating on the water, and the frog's intestine offered to an actinia; muscular contractions ensue, perhaps not so promptly, certainly not so vigorously as in the former experiments, but nevertheless easily to be recognized and unmistakable. They commence in the thighs, and, as in

former case, extend to the calves, and then the toes more actively. This last experiment has been modified in a variety of ways, but the same result has been constantly obtained. Perhaps the best modification of it is to use a piece of copper wire having one end coiled so as to form a disk which is covered with chamois-leather, while the other is sharp-pointed to enter the spinal canal of the frog. The whole, except the surface of the disk, which is to be given to the actinia, and the point for the spinal canal, is covered with sealing-wax, and the frog's limbs extended upon a thin piece of board. With this arrangement precisely the same effects were produced as already described.

It is a remarkable fact, and deserves special notice, that in all these experiments the muscular contractions, when once strongly excited, whether by direct contact or through the medium of wire, do not at once subside. When the limbs are withdrawn from the influence of the actinia in the first experiments, or removed from the wire in the last, strong muscular contractions continue to take place for from three to five minutes.

All the varieties of actinia which have hitherto been made the subject of experiment, have given similar evidence of electrical power, but by no means in an equal degree. The large varieties are found, in proportion to their size, much feebler than those of less dimensions, and any attempt to succeed in the experiment with the copper wire has failed with them.

A somewhat similar observation has been made by Dr. John Davy regarding the torpedo, for he tells us (*Philosophical Transactions*, 1834, p. 548) that he has seen strong vivacious fish which made great muscular exertions in the water, almost or entirely destitute of electrical action.

It is obvious that in creatures of such moderate dimensions as actiniae, of so peculiar a form and of such feeble power, much difficulty is to be expected in demonstrating the other experimental effects which animal electricity is capable of producing in common with other electricities, viz., magnetic deflection,—magnetising of needles,—spark,—heating power, and chemical action; and it must be admitted that all experiments hitherto undertaken on this subject have been attended with negative results. I hope and indeed expect, when further opportunities are afforded of examining these creatures in health and vigour in their native pools, to obtain more satisfactory results on these points, when I shall look forward to the pleasure of making a further communication on the subject.

ROYAL COLLEGE OF SURGEONS.—The Students have presented Dr. Mapother with a tea and coffee service and salver, bearing the following inscription:—"Presented to Edward Dillon Mapother, M.D., Queen's University, by the Students of the Royal College of Surgeons, in appreciation of his talents as a teacher of Anatomy and Physiology."

Proceedings of Societies.

ASSOCIATION OF THE FELLOWS AND LICENTIATES OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND

May 5, 1858.

DR. MONTGOMERY in the Chair.

Professor OSBORNE, M.D., read a paper on
"Posture, sleeping and waking."

He ascribed the frequency of pneumonia attacking the right lung, to the habit of sleeping on the right side, by which means the liver becomes dependent, and ceases to press on the other viscera; the heart's action is also left more free. He dwelt on the mischievous effects of the supine posture in cerebral disease, and on the importance of giving strict directions to patients suffering from such affections to recline on either side. As regards "the waking posture," he stated that man was the only animal assuming the vertical position; that the abdominal viscera were generally pendent sixteen hours out of the twenty-four. He dwelt on the effect of habit and education on the muscles, and the modifications they undergo, especially those of the face. Dr. Osborne concluded this interesting physiological paper with some remarks upon walking, and the more equally apportioning specific gravity.

Professor LAW, M.D., gave the details of a case of *Nervous Fever* which occurred in a middle-aged professional man. At first there was no acceleration of the pulse, nor feverish state of the skin; the tongue was slightly furred. On the fourth day the patient was incoherent; eyes red and ferreted. There was subsultus tendinum; which daily increased, till the whole frame became agitated. The patient "whistled and sung," although he had never been known to "turn a tune" in his life. The treatment employed in the early stage was camphor, tartar-emetic, and opium; afterwards musk was exhibited. The case terminated fatally. Dr. Law considered the "singing and whistling" unfavourable symptoms, having seen several similar cases prove fatal. There was no *post-mortem* examination in this instance, but in analogous cases Dr. Law found softening of the cerebellum, thickening of the membranes at the base of the brain, and occasionally the effusion of greenish transparent lymph.

Dr. ATTHILL read the history of a case of
Puerperal Convulsions supervening on Natural Labour,

in a woman aged 25 years. The symptoms were headache, great excitement, sleeplessness, small quick pulse, with suppression of the lochial discharge. Opium failed to procure sleep. After 75 hours passed without repose, the inhalation of chloroform was tried; it produced insensibility. A grain of muriate morphia was placed on the tongue; the patient fell into a deep sleep. Her convalescence was gradual and steady.

Selections from British & Foreign Journals.

PRACTICAL REMARKS UPON TRACHEOTOMY.

In the number for April 1st (see page 109), we called the attention of our readers to the indications and counter-indications of tracheotomy. We will now reproduce some of Dr. Guersant's remarks upon the safest mode of performing this important operation, and the precautions best calculated to secure its success.

The instruments employed by this surgeon we have frequently described; he has added to their number a tenaculum, an œsophagian forceps, and a caoutchouc probe, destined to serve as a conductor to the silver canula.

The object of the tenaculum is twofold: it assists materially in the ligature of whatever small arteries may have been divided, and furnishes, if required, a safe and prompt mode of fixing the trachea. With regard to this point, Mr. Guersant reminds us of the importance of the above indication, in the eyes of several eminent surgeons. Mr. Bretonneau having remarked that the instability of the trachea frequently causes it to move, so as to render its incision a matter of some difficulty, recommended to fix it in its position with the assistance of long needles, curved at their point, and furnished at their head with a ball of sealing-wax. For the same purpose Mr. Liston used a simple hook, with which he fixed the trachea, after having laid it bare by a prolonged incision of the skin. Mr. Chassaignac went one step farther: finding it next to impossible, by the unaided pressure of the fingers, to steady the windpipe, on account of its elasticity and the numerous muscles by which it is surrounded, it occurred to him to secure the cricoid cartilage with a powerful tenaculum, the convexity of which being grooved, like the catheter used in lithotomy, might serve as a conductor, along which the knife could readily glide into the trachea. Tracheotomy, thus performed, is an exceedingly brilliant operation; and we must say that Mr. Chassaignac has never had any reason to regret having imagined this *modus operandi*, which has also been resorted to with success by a distinguished young physician, Dr. Isambert. Mr. Guersant himself has also employed it with advantage, but he does not, however, consider the use of the tenaculum as absolutely necessary. In many cases he is of opinion that it may be dispensed with; and on the other hand, he thinks that by cutting at once into the trachea, through the skin and all the intervening textures, important bloodvessels may be divided, and amongst others, Neubauer's thyroid artery. Mr. Guersant acknowledges, nevertheless, the real utility of Chassaignac's tenaculum; and to render it still more efficient, he has modified its construction in the following manner. Having remarked that the common tenaculum twists the trachea to a certain extent, and exposes the surgeon to open it at the side, he caused the instrument to be bent at right angles with its handle, so as to act much in the way of Deschamps's needle. We may also add, with Dr. Chassaignac, that in the absence of a special instrument, a ligature passed through the trachea with a curved needle will sufficiently answer the surgeon's purpose.

Formerly, when the trachea was incised, and found to contain false membranes, it was cleaned with a little sponge borne upon a whalebone. Unfortunately, this instrument acted like a ramrod, forcing back the diphtheritic secretions, and merely displacing the impediment to the free introduction of air. This disadvantage has induced Mr. Guersant to abandon the sponge, and adopt the œsophagian forceps, with which he removes readily the false membranes, hooking them up in the same way in which he recently extracted a bean which had slipped into one of the principal bronchial divisions.

He also insists upon the necessity of adding to the double canula a caoutchouc conductor of a proper size. It is an excellent guide when the silver tube has to be inserted—an anxious moment, during which hesitation of any prolonged duration might bring on asphyxia; with the conductor no mistake of any moment can possibly occur. If the instrument enters readily into the windpipe, the expired air, passing through the apertures of the catheter, gives satisfactory evidence of its penetration into the proper duct; and, in the contrary case, the apparatus is withdrawn; and, supposing the too small dimensions of the wound to have produced the difficulty, the operator, by merely enlarging the incision, has every chance of complete success before him.

Both before and after the operation precautions should be taken upon which it is impossible to lay too much stress. The child should repose upon a solid bed, at breast height, the head thrown back, and the hinder part of the neck supported by a tight straw or linen bolster, so as to bring forward as much as possible the entire infra-hyoidean region. The co-operation of several persons is indispensable, in order to maintain the attitude of the patient, and aid the operator. In private practice, what help can be obtained must be utilized, but a cool and skilful assistant must be placed on the side opposite the operating surgeon.

According to Dr. Guersant, the stoutness of the child must give the measure of the incision to be made. It is, however, a dictate of common prudence not to extend the section too far towards the sternum; to examine with the finger, during dissection, the inferior angle of the incision; and to keep a vigilant eye upon the arteria innominata, which, in young children, rises with the act of inspiration. In the hospital this artery was once injured; in private practice one of the carotids was likewise wounded; and in several instances the œsophagus. When Dr. Guersant performs tracheotomy he proceeds as follows:—With one bold sweep he divides promptly the skin and subcutaneous cellular tissue, on the mesial line. After sponging the wound, the intermuscular space is sought for. The knife is then laid by, and, with a grooved conductor without a stop, the veins are pushed aside, the lips of the wound being kept well asunder with blunt hooks or lid-depressors. The muscles are separated in the same way, and the trachea is thus laid bare. If it be unsteady, and deeply seated, Mr. Guersant fixes it with the cricoidean tenaculum; if not, he simply supports the ærian tube with the left index, and, introducing the knife perpendicularly into its cavity, he divides, according to the child's age, from below upwards, two, three, or four of its rings.

After the incision, the child must cough up the blood which has flowed into the respiratory organs. Should its exit present any difficulty, it may be sucked up with a syringe. The dilator is then introduced, previously to placing the canula.

Since the substitution of the double instead of the single silver canula, and since the precaution has been adopted of placing before its orifice, as a kind of respirator, a muslin or woollen tissue, through which the air may be filtered, and by which the inhaled air is kept constantly in a state of warm moisture, the anxiety caused by the solidification of mucous deposits within the tube has been dispelled. It is, however, always desirable to modify as much as possible the circumambient atmosphere. Thus, in rooms heated by means of stoves, the air is generally too dry; it should be supplied with moisture, by placing on each side of the patient's bed, and renewing from time to time, large basins filled with warm decoction of marsh-mallow roots, the tepid vapour of which will assist expectoration.

Mr. Guersant does not cauterize the lips of the incision as a measure of precaution. Should they, after forty-eight hours, present any diphtheritic appearance he touches them with lunar caustic; two days later

repeats the application, refreshing the wound, in the interval, with lemon-juice. He does not object to leaving the canula untouched during the two days subsequent to the operation, although it may be necessary to withdraw it before that period. Thus, if false membranes block up the trachea, the canula must at once be removed, and the morbid secretions extracted with the forceps.

Some patients proceed most satisfactorily after tracheotomy, and yet the food cannot be swallowed without, as it were, going down the wrong way. This singular system is occasionally noticed at a much later period, even when the canula has been removed. It seems caused by the fact that the epiglottis, having been for a long time fatigued by the presence of pseudo-membranous secretions, has lost the power of properly performing its functions. In order to recover its elasticity it requires repose, and in the interval the patient languishes and wastes away. This functional incapacity is sometimes relieved by the administration, recommended by Professor Trousseau, of soups thickened with bread or vegetables, macaroni, or hashed meat, the deglutition of which appears easier than that of purely liquid nutriment. If that plan be unsuccessful, a caoutchouc tube must be introduced through the nostril into the œsophagus; and thus, three or four times daily, broth, milk, or chocolate may be admitted into the stomach. The chordæ vocales may, like the epiglottis, be more or less crusted over with false membranes; after the removal of the canula no air passes through the larynx, its cavity continuing to be obliterated by diphtheritic secretions. In such cases Mr. Guersant has derived much advantage from the following plan:—A small pledget of lint is tied with a double string, one of the ends of which is firmly fixed to an India-rubber catheter, which is carried upwards into the larynx. This little apparatus raises the epiglottis, and, through the pharynx, appears in the fauces; it can thus readily be passed several times up and down through the larynx, so as to remove the false membranes adhering to the parietes.

The canula should be definitively withdrawn only after the expulsion of these morbid productions, and when the air-passages have recovered their complete freedom. As a proof that this object has been attained, the child must be able to blow out a candle, and should feel no dyspnoea when the lips of the artificial opening in the trachea are brought into close approximation. It is then proper to take measures to close the wound. Mr. Guersant applies only a simple dressing, and never contemplates immediate healing. He merely keeps down granulation by the application of lunar caustic and he frequently meets in society young ladies whom he had operated on twelve or fifteen years before, and who bear no visible marks of tracheotomy.

Such are the local measures required by this operation. The general treatment, hygienic and pharmaceutical, has not less importance, nor is it less deserving of the practitioner's attention. The little patients must be in good air, and kept warm. In this respect it is most necessary to avoid any portion of their drinks falling upon their clothes or their person. The question of nutriment is also of the greatest consequence. After all operations, except in very rare cases, the patients require support; after tracheotomy necessitated by pseudo-membranous croup, this indication is an obligation of the most urgent character. Mr. Guersant at first prescribes beef tea, and milk-and-water; somewhat later, tapioca, arrow-root, groats, infusion of roasted acorns, &c. Further, it is evident that if any special treatment can be with advantage applied to diphtheritic disease, it is incumbent upon the physician to give his patient the benefit of such treatment; but we will postpone entering upon this interesting subject until our next number.—H. CHALLON, in *Journal of Practical Medicine*.

ON THE EXISTENCE OF GLUCOSE IN THE ANIMAL ORGANISM.

By MM. POISEVILLE and J. LEFORT.

One of us, pursuing his physiological researches on the phenomena of respiration, having met with results which it was impossible to interpret in the present state of the science, thought, rightly or wrongly, that a mutation of glucose by the lungs might account for them; but this was to admit glucogenia. Now, the radical objections which had been raised against this doctrine, from its first promulgation, the most robust faith could hardly stand up against; we therefore thought it necessary to resume the question *ab ovo*, examining it under all the various phases which the subject might suggest to us. We sought glucose, not only in the liver, but also in all the other organs of vertebrate animals.

Glucose in Fishes.—Of forty sea and fresh-water fish, some presented sugar in the liver to the amount of from 0.484 gr. to 1.50 gr. per cent.; but the intestines, spleens, soft roes, ovaries, and muscular flesh contained none. In the others there was no sugar in any part.

Glucose in Frogs.—The livers of these reptiles gave 0.315 gr. to 0.632 gr. of sugar; the viscera and muscular flesh 0.

Glucose in Birds.—The same result as for fishes. No sugar in the viscera; the liver gave from 0 to 2.164 gr. per cent.

Glucose in Mammalia.—A liver of a hare, 0; of a roebuck, 1.092 gr.; of three rabbits, from 1 gr. to 1.163 gr.; of three cats, 0.807 to 2.305 gr.; of two dormice in the state of hibernation, 0.624 gr. Absence of sugar in the other viscera and muscular flesh.

Most of these animals, as well as those of the preceding classes, were in undetermined physiological conditions.

The sugar being destroyed, as we proved, both in organic decoctions and in the tissues themselves, as the livers of animals, soon after death, have always given us glucose, we have felt warranted in thinking, that when a liver does not yield sugar, this principle has been transformed by time.

Is the glucose which is formed in the organism introduced into it ready formed by the muscular flesh; or, in the case of the herbivora, does it result from the transformation into sugar of a portion of the anhydrous alimentary substances in the intestinal tube? May we extend to other organs than the liver, and in particular to the internal parietes, the faculty of producing sugar? Before describing the various experiments which we have made relative to these different points, we may mention, that we have often found sugar in the muscular flesh of the horse, with which our dogs were fed, and also in the mutton, veal, beef, and pork used for the food of man, but in very minute quantity: a few milligrammes in 100 grammes of the flesh.

A. A dog which had fasted sixty hours; weight, 33 kilogrammes; fed for six weeks with horse-flesh; he consumed daily three or four kilogrammes of raw flesh. Liver, 1.487 of glucose; lymph extracted from the thoracic canal, 0.141; blood of the hepatic veins, 0.821; blood of the *vena porta*, collected from the anastomotic arcades of the mesaric veins, 0; blood of the carotid, 0; blood of the *vena cava* inferior, near the pelvis, 0; small intestines (471 grammes), 0; mesaric ganglia, 0; heart, right side, traces; left side, 0; lungs, 0; spleen, 0; kidneys, none; brain, 0; urine, 0; muscular flesh, 0.

None of the fluids contained dextrine; it was the same with the organs, with the exception of the liver, the decoction of which gave a light red tint with iodised water; and of the muscles, the decoction of which gave a very deep tint.

We see that the liver alone contained sugar, and that the blood of the *vena porta* gave none, contrary to the observations of the adversaries of animal glucogenia. Without any doubt this blood, owing to the above ali-

mentation, contains the elements proper for forming glucose; but it is the liver which is charged with this transformation.

We remark, besides, that the lymph of the thoracic canal contained sugar. Whence can it have come? From the intestines? From the liver? But if glucose were absorbed by the radicles of the chyloferous vessels of the intestinal velocities, we should necessarily find it in the parietes of the intestine; but we do not. The sugar comes, then, from the numerous lymphatics which go from the liver to the thoracic canal.

B, C. Two other experiments, made on dogs also, of a large size, but fasting from thirty-six to forty-eight hours, furnished the same results.

D. Horse in full digestion.—He had taken ten litres of corn the night before the experiment, and the previous night and the same day also, ten litres at different hours.

Liver, 2.292 gr.; blood of the hepatic veins, 1.128 gr.; chyle, 0.222 gr.; lymph from the head and neck, 0.442 gr.; blood of the carotid, 0.069 gr.; blood of the jugular vein, above the ligature, 0.050 gr.; blood of the *vena porta*, below the ligature, 0.066 gr.; blood of the *vena cava inferior*, below the ligature, 0.067 gr.; mucus of the small intestine, traces; small intestines, traces; muscular flesh of the heart, traces; muscular flesh of the locomotive system, traces; pancreas, doubtful; mesenteric ganglia, 0; spleen, 0; kidneys, 0; brain, 0; lungs, 0; urine, 0; synovia of the femora-rotulian articulation, 0.142 gr.

Another experiment, made on a dog weighing thirty-nine kilogrammes, *during digestion*, gave perfectly analogous results.*

Here we find glucose, not only in the liver, hepatic veins, and chyle, as in the preceding, but also in the arterial blood, the lymph, the blood of the *vena porta*, that of *vena cava inferior* and *vena cava superior*; and also in the parietes of the small intestine, and in the muscular flesh.

The sugar furnished by the liver, in the physiological conditions in which the animal was, being in very great quantity, was no longer entirely destroyed, as in the preceding cases, in going from this organ to the lungs: whence the presence of glucose in the arterial blood. It was also met with, *ceteris paribus*, in the lymph, the blood of the *vena porta*, the intestinal parietes, which may also imbibe it from the alimentary matters passing through the digestive tube.

On what facts does intestinal glucogenia support itself, in order to vindicate its part in animal glucogenia? Not on researches which would have had the object of establishing the formation of sugar in the intestinal parietes, as it might have appeared natural to do, but on the presence of glucose both in the chyle and in the lymph. We have, indeed, found some in these two liquids, as the foregoing two experiments show. The dog gave 0.166 for the lymph, and the horse 0.442. But if we seek the quantity of sugar furnished by a lymphatic vessel of the mesentery, coming directly from the intestine, as chosen by the author of intestinal glucogenia himself, what do we find in a cow during digestion, like the horse and the dog? 0.186 gr. Can this result, compared with the preceding—0.166 gr. and 0.442—even lead us to suspect that the small intestine is the seat of a production of sugar, when the lymphatics of other parts of the body, so far from giving, as this hypothesis would require, a much smaller quantity of it, produce, on the contrary, equal, and even greater, quantities of it.

These observations superabundantly prove that intestinal glucogenia has no reasonable foundation.

From all the facts given in this work it results, that

* We are indebted to the enlightened kindness of M. Goubaux, Professor of Anatomy at the Imperial Veterinary School of Alfort, for having been able to collect chyle and lymph from the dogs and herbivora, for our experiment.

in fish, reptiles, birds, and mammalia, immediately after death, we always find a large quantity of glucose in the liver; that the presence of this principle in other parts of the organism is accidental, temporary, and due only to peculiar physiological conditions, which induce in this organ a greater production of sugar. If these facts are well proved, they demonstrate that, in the vertebrata, of all the organs, the liver alone forms sugar.—*Comptes Rendus*, No. 12, March 22, 1868.—*Chemist*.

OXIDATION OF ALBUMEN BY PERMANGANATE OF POTASH.

The experiments made, some time since, by M. Béchamp, have recently been repeated by Hr. Städeler, who has obtained results entirely different from those described by the former chemist. In the first place, he found that, by the action of permanganate of potash, at a temperature of from 50° to 55° C., upon white of egg, no urea was produced; and also, that the quantity of permanganate requisite for the complete oxidation of the albumen at this temperature, was only half that stated by M. Béchamp.

The liquid, when evaporated to a syrupy state, did not deposit crystals of urea; but, when mixed with nitric acid, disengaged acetic and formic acids, and, at the same time, deposited a large quantity of crystals, presenting an appearance similar to that of nitrate of urea, but which were found to consist of benzoic acid. This substance has already been observed to result from the oxidation of protein substances by chromic acid, and by oxide of manganese and sulphuric acid.—*Pharmaceutical Journal*.

REMARKABLE CASE OF ENCEPHALOID DISEASE OF THE RIGHT OVARY,

Weighing ten ounces and a-half, occurring in an infant nine months old.

Naomi J——, aged nine months, residing in George-street, Cliftonville, was brought to me for advice, on the morning of the 15th of February. The mother stated, that on the day before she first observed her baby's stomach was very much swollen; that up to this time it appeared in good health, except that it got rather thinner, which she attributed to teething, as her children usually fell away at that time. The child was fretful, and occasionally cried out as if she were in pain in her abdomen, and sometimes vomited her food. The abdomen was very much distended, and tympanitic generally, except the hypogastric region, which elicited a dull sound on percussion; but the mother assured me the child had passed its urine freely. She was anemic-looking; pulse frequent and feeble; tongue white; evacuations of a greenish hue.

Feb. 16th.—No improvement in the symptoms; the child very restless, and frequently screaming out, as though in acute pain.

17th.—The abdomen remains distended to the utmost, and tympanitic; the vital powers evidently sinking. In the evening of the same day I found the child in a semi-comatose state; pulse very rapid and feeble, and extremely cold. At midnight she expired.

The following day I made a *post-mortem* examination of the body, with my friend, Dr. Davis. Upon opening the cavity of the abdomen, a quantity of fluid (serum) escaped; the small intestines were very much distended with flatus, and pushed up by a large tumor, occupying the pelvic cavity, the hypogastric, and part of the umbilical region; the stomach was empty; the cæcum contained a small quantity of greenish feculent matter; the whole of the viscera were healthy in appearance, but exceedingly pale; no signs of peritoneal inflammation. The tumor I found seated in the right ovary, which I carefully removed, with the uterus and its appendages, and afterwards gave it to Dr. Ormerod, to add

museum of the Sussex County Hospital. It was of an oval form, and a mottled white-and-red colour, the different coloured patches being separated by sulci, in which ran large vessels, giving the tumor very much the appearance of a small brain. Besides these patches were small cysts, here and there containing a clear yellow fluid. On section, more of these cysts were visible, and the difference between the white and red parts appeared very distinct, referable, apparently, to the different degree of vascularity of the different parts. The substance of the tumor consisted of a matter of about the consistence of cerebral substance in a child of that age. Under the microscope it displayed numerous cells, more or less affecting an oval form, some much more elongated, all nucleated. The uterus, particularly the cervix, was very much enlarged.

Malignant disease of the ovary, though of rare occurrence, and seldom a primary affection, has, I believe, never been met with, except in adults, or before the commencement of sexual activity. Encephaloid tumors are less common than other malignant diseases of the ovary, but the disease occurring as a primary affection, in an infant at the breast, is unparalleled, and renders this case unique. The rapidity with which it ran its course, the age of the child, and the absence of any symptom that could excite the suspicion that the disease was malignant in character, are circumstances of great interest.—Dr. RICHARD BROWN, in *Lancet*.

ON THE INFLUENCE OF LIGHT ON ANIMALS.

By M. J. BECLARD.

The action of light on the phenomena of vegetable life has long since attracted the attention of observers. The works of Ingenhousz, Sennebier, de Candolle, Knight, Payer, Macaire of Geneva, &c., have shown that the luminous solar radiation exercises an incontestable influence on the respiration, absorption, and exhalation of plants, and consequently on their general or local nutrition, on the direction of the stalks, and on that of various parts of the vegetable.

Science is much less advanced as to what concerns the action of light on the animal organization. The experiments of W. Edwards on the development of frogs' eggs, and on the metamorphosis of the tadpole (development and metamorphosis which, according to his investigations, are not accomplished in the dark, but only in daylight); the works of M. Morren on the animalcules developed in stagnant waters; finally, those of M. Moleschott (which show that the respiration of frogs, measured by the quantity of carbonic acid exhaled, is more active in the light than in the shade); such are the only positive notions which science possesses on this point.

About four years ago we commenced, in the laboratory of the *Faculté de Médecine*, a series of experiments relative to the influence of ordinary light (white light) and also the influence, not yet studied, of the various coloured rays of the spectrum on the principal functions of nutrition. The object of the present note is to present, by anticipation and in a concise form, some of the more important results of these experiments.

I.—The nutrition and development of animals which have neither lungs nor brachia, and which respire by the skin, appear to undergo very remarkable modifications under the influence of the various coloured rays of the spectrum. Flies' eggs (*Musca carnaria*, Linn.) taken from the same groups, and placed at the same time under variously coloured glasses, all produce worms; but if, at the close of four or five days, we compare the worms under the glasses, we remark that their development is very different. The most developed worms correspond to the violet and blue rays. The worms hatched under the green ray are the least developed. The various coloured rays may be grouped as follows, with regard to the decreasing development

of the worms:—Violet, blue, red, yellow, white, green. The worms developed under the purple ray are three times larger, both in thickness and length, than those developed under the green ray.

II.—This first result led us to examine the function which best shows the quantity of organic metamorphoses. We speak of the respiration, the products of which can be collected and estimated.

From a long series of experiments on birds, we find that the quantity of carbonic acid formed by the respiration in a given time is not sensibly modified by the variously coloured glasses under which they were placed. It is the same with the small mammifera, such as the mouse. We must remark, that among birds and the mammifera the skin is covered with feathers or hair, and that the light does not come in contact with its surface. Now, we know from the researches of MM. Regnault and Reizet, that the gaseous changes which take place on the surface of the bodies of these animals are almost nil.

III.—When we examine the influence of the various coloured rays of the spectrum on frogs, whose skin is naked, and whose cutaneous respiration is energetic —(the cutaneous respiration equals, and sometimes exceeds, the pulmonary respiration)—we prove remarkable facts. Our experiments have hitherto been only with the green ray and the red ray; we are now continuing them with the other rays. In the green ray an equal weight of frogs produces, in the same time, a much larger quantity of carbonic acid than in the red ray. The difference may be more than half; it is generally at least a quarter or a third.

IV.—The skin of the animal (very probably the colour of the skin) appears to have a determining influence on the preceding results. Example.—Place under a green glass a certain number of frogs; place at the same time, under a red glass, a certain number of frogs weighing the same as the preceding; estimate the quantity of carbonic acid produced after twenty-four or forty-eight hours: the excess will be in favour of the frogs placed under the green ray, as we have said. Afterwards remove the skins of the frogs, and replace them in the same conditions; the result will be changed: the quantity of carbonic acid produced by the skinned frogs will be more considerable in the red ray than in the green ray.

V.—The influence of the coloured rays of the spectrum on the proportions of carbonic acid exhaled in a given time by a living animal is continued for some time with the dead animal (muscular respiration), and ceases as soon as putrefaction commences; that is to say, after the disappearance of the stiffness of death. Butcher's meat, taken the day after, or two days after the death of the animal, always gave an equal proportion of carbonic acid when placed simultaneously under the various coloured rays.

VI.—A small number of experiments tried on the cutaneous exhalation of the vapour of water, showed that in darkness (with the same temperature and weight) frogs lose by evaporation a quantity of water half or a third less than in white light (ordinary diffused light). In the violet ray, the quantity of water lost by the animal, in a given time, is distinctly the same as in white light.—*Comptes Rendus*, No. 9, March 1st, 1858.—*Chemist*.

CALUMBA IN VOMITING.

M. Lami observes, that while we are thankful for any new therapeutical agent, we must not forget the value of those we possess. Among these, fresh-powdered calumba has always, in his hands, proved a most efficacious remedy in nervous, spasmodic, or atonic vomiting, as in that of pregnant women. He gives 15 grains with a few spoonfuls of wine, an hour before meals, three times a day.—*Press Belge*, 1857, No. 26.—*Medical Times and Gazette*.

AN HISTORICAL CRITIQUE ON THE CURE
OF POPLITEAL ANEURISMS BY DIGI-
TAL COMPRESSION;*With reference to several communications made to the
Société de Chirurgie.*

Drawn up by AR. VARNIEUX,

Fellow of the Faculty; Surgeon to the Hospitals.

Since the publication of the valuable work of our excellent friend, M. Broca,* the question of the treatment of aneurisms has been re-opened, and compression has resumed a pre-eminence it ought never to have lost. Perhaps this is, to a certain extent, to be attributed to the legitimate crusade waged with so much ardour against the surgery of the knife. However this may be, the Société de Chirurgie has latterly had the good fortune to receive three reports of aneurisms cured by compression performed with the fingers.

We had lately announced the communication of M. Vanzetti, of Padua; at the same time, a work by M. Michaux, of Louvain, containing a similar case, reached the Society; so that we shall, without further delay, proceed to bring the subject before our readers.

With reference, first, to the new facts. It occurred to M. Vanzetti, who had seen compression employed in Dublin, in 1843, to substitute, for the mechanical means there used, the hand of several successive assistants. In 1846 he made a trial of this mode, at the Hospital of Kharkoff, in Russia, conjointly with M. Serebraikoff, surgeon to the hospital. He himself instructed the persons intrusted with the maintenance of the compression, as to the place and manner in which it should be employed. The compression was kept up for two days, but without effect. The patient was operated on by ligature.

Eight years later, in 1854, M. Vanzetti received under his care, in hospital, at Padua, a mason, aged about 36 years, of tolerably good constitution, labouring under a well-marked, though medium-sized, popliteal aneurism.

The pulsation ceased as soon as the femoral artery was compressed. M. Vanzetti resolved to employ compression; but, discouraged by the failure just alluded to, he tried a great number of compressors, with much patience on his part, and much inconvenience to the sufferer. Before resorting to tying the femoral artery, he wished to try digital compression once more, in the hope that, under his immediate superintendence, it would prove more successful. Several assistants—seated or standing; sometimes with one hand, sometimes with both hands, placed one over the other—compressed the artery with a *very moderate force*, sufficient to bring the walls of the artery together, but without inconveniencing the patient. The situation chosen was the middle third of the thigh, in order that the profunda artery should not be obliterated.

At the end of twelve hours there was considerable diminution of the expansive movements of the tumor. At the end of forty-eight hours there was no pulsation, nor could any bruit be heard, and the compression was withdrawn. There was no relapse. The tumor in the ham gradually disappeared, and, at the same time, the leg became straight again. This man has resumed his occupation; he walks without limping, and experiences no inconvenience in the movements of the knee.

The second case is still more remarkable. In 1855, a very intelligent officer, aged 27, consulted M. Vanzetti for a popliteal aneurism of the right side. The employment of digital compression was resolved on, but was deferred for twenty days. During this period the patient himself made compression, the action of which had been explained to him. The tumor, which

was of small volume, seemed to diminish even under the influence of these imperfect attempts.

The real treatment was commenced at noon, and was confided to six intelligent and reliable assistants. At six o'clock, M. Vanzetti returned to see what state things were in. The patient was fast asleep; not one of the assistants was with him. Great was the surgeon's surprise; greater still was his astonishment when he learned that after four hours of careful compression, *the aneurism had become still*, and that its pulsations had completely ceased! Accordingly, at five o'clock—that is, an hour after—the assistants had withdrawn. The patient remained at the Clinique for a month. He was seen again several months later; there was no lameness, and the movements of the limb were free. The aneurismal tumor was converted into a solid nucleus, of the size of a filbert.

Such are the facts furnished by the Paduan surgeon, and which he has put forward with the most remarkable clearness. M. Marjolin, in his turn, has communicated two cases reported by M. Michaux, of Louvain, one of the most distinguished of foreign surgeons. The first is a long chirurgurgical drama, commencing with double and intermittent compression, and ending with amputation of the thigh, rendered necessary by gangrene of the limb, after ligature of the femoral artery. This case is one of great interest, but as it does not bear directly on the point under consideration, we shall not further allude to it. The details may be found in the Bulletins of the Society.

The following is a succinct analysis of the second case:—

A man, aged 50, of good constitution, who had always enjoyed excellent health, complained, for the first time, in 1851, of rheumatic pains in the left thigh. In August, 1856, the patient discovered, at the anterior and inner part of the thigh, a pulsating tumor, situated nearly two and a half inches from the crural arch. Its progress was rapid, for in the month of November it measured five and a half inches in its transverse, and four and a third inches in its vertical diameter. It presented very distinctly all the signs of aneurism. The complete examination of the patient denoted a general alteration of the arterial system; abnormal sounds towards the centre of the circulation, and a rather rough soufflé in all the large arteries. The other functions were tolerably well performed.

What treatment was to be adopted? If ligature was to be employed, it should be applied to the external iliac, always a serious operation, especially when the vessel is altered. On the other hand, alternating compression with two pads was not compatible with the very high situation of the tumor. M. Michaux decided on making single compression on the ilio-pectineal eminence, with the small pad of M. Broca's apparatus. The treatment was commenced on the morning of the 28th of November. The compression was to be intermittent—that is to say, every four or five hours the apparatus was to be loosened, to allow the patient to rest. The next day the severity of the pain rendered it necessary to suspend the compression for four hours. On the 30th a vesicle had formed on the surface of the compressed skin; the pressure was again suspended for four hours. The pad was placed a little lower. Compression was alternately suspended and re-established until the 2nd of December, as the presence of vesicles indicated the formation of an eschar.

During these four days the pain had been extremely severe, especially in the loins and in the heel. There was complete want of sleep, notwithstanding the employment of opium. The patient was very much fatigued; and nevertheless the tumor had diminished in size, and had become hardened. On several occasions, when the permanent compression had been prolonged for four or five hours, the pulsations had disappeared. M. Michaux then thought of using digital compression. By good fortune, a portion of sound skin remained within the eschar, where the application of the finger

* "*Des Aneurismes et de leur Traitement.*" Paris: 1856.

was sufficient to arrest the pulsations. The pupils of the hospital applied themselves to the task with the greatest zeal, on the 5th of December, at half-past 9 in the morning; the compression was to be total; the pulsations of the artery being energetic, tolerably strong pressure was necessary to obstruct the vessel.

Compression was very painful on account of the vicinity of the eschar. In the afternoon, œdema, tingling, numbness, and rigidity of the limb were present; the feet became cold; there was complete want of sleep, as well as acute thirst, intense fever, and violent colic, at 2 o'clock in the morning; but the tumor became perceptibly solidified; the pulsations diminished; soft clots filled the sac. The local improvement continued without interruption; at 9 o'clock in the morning, twenty-four hours after the establishment of the digital compression, the pulsations and the bruit de soufflé entirely ceased. The arteries no longer pulsed below the aneurism, but above it, on the contrary, the commencement of the femoral pulsed strongly.

As a matter of prudence, the compression was kept up until 2 o'clock in the morning; it was then interrupted for half an hour, to afford some respite to the unhappy patient, after which it was resumed until 9 o'clock in the morning, to be finally given up.

I stop here to impress more forcibly the mind of the reader, and I pass in silence over the details of the general treatment, which was very ably conducted during all this period, as well during convalescence. On the 14th of December the eschar separated; it involved the entire thickness of skin. On the 16th of January the wound had cicatrized. On the 24th the patient left the hospital perfectly cured. The aneurismal tumor was very hard; it is still of a tolerably large size, (two inches by two and three-fourths), but the cure is no longer doubtful.

Did they stand alone, the remarkable cases just reported would suffice to commend digital compression strongly to the attention of surgeons. What objection can there be to a proceeding which cures popliteal aneurisms in five hours—even in forty-eight hours; a considerable aneurism of the femoral in twenty-four hours? What, without digital compression, would have been the fate of M. Michaux's second patient? Let us observe that, in two cases, no resource remained but the ligature; the insufficiency of compression by means of apparatus was palpable. If M. Broca had had these facts before him when he was preparing his book, he would certainly have modified the chapter he has devoted to the operative proceeding we are speaking of. Without tracing, step by step, the history of digital compression, we may be permitted here to discuss with our learned friend some of the propositions he has announced in his book.

While he considers digital compression to be "a very valuable resource," M. Broca regards it as a means which we must reserve for the following cases:—1. When the deviation of the limb does not permit us to act efficiently on the artery by means of mechanical apparatus. 2. When excessive irritability of the skin is opposed to every other species of compression.

Now, the latter condition alone existed, and in but one of the three cases above quoted. The two other cases show that it is advisable to enlarge the scope of the process. On further consulting the facts collected in M. Broca's book, I find another very remarkable case, that of Mr. Greatrex. The alternating employment of a compressor and of the patient's fingers put a stop to the pulsations at the end of twenty-four hours.

In a case of Mr. Knight's, compression with apparatus could not be borne for more than an hour. Forty hours' continuance of digital pressure on the pubis was sufficient to insure a cure.

To crown the work, we have the curious case of the patient under Mr. Colles's care, who cured himself by keeping up for seven days a digital compression, which was necessarily very imperfect.

It is far from being my intention to conceal the

tolerably numerous failures of this process. But, on the whole, what have we lost when we have failed? Nothing; even when the means employed prove unsuccessful, as happens also occasionally with compression by apparatus. It appears to me that digital pressure has been less painful for the patient than the latter, which may then be advantageously substituted for it.

For my part, notwithstanding the constantly progressive improvements of apparatus, which, according to M. Broca, render cases very rare in which digital compression is indicated, I consider, with him, that it constitutes the type of the method, and that consequently it is only in extreme cases that we ought to draw back from the difficulties of its application. In common with M. Michaux, I can scarcely doubt that, in the immense majority of cases, we should be able to find the devoted co-operation of a sufficiently large number of assistants to take part in an enterprise as noble in a humane, as it is interesting in a scientific point of view. Hitherto digital compression has most frequently been employed only after mechanical compression. I think that, hereafter, we should proceed in exactly the inverse direction, and, when compression is indicated, commence with the pressure of the fingers before having recourse to a less gentle process.

Perhaps it will not be uninteresting to take a rapid survey of the cases of aneurism in which digital compression has been employed, whether alone or combined with mechanical pressure.

These trials, in number seventeen, include seven unsuccessful and ten successful cases. I shall add some explanatory remarks on the two categories.*

FAILURES.—Four times compression was employed primarily—that is to say, before any other means. A. Popliteal aneurism; two days' compression; ligature (Vansetti). B. Popliteal aneurism; four hours only, then mechanical compression for six days (Jameson). C. Diffused aneurism of the femoral; sixty-two hours; apparent cure, which proved not permanent; seven days' compression with a weight on the groin; decisive cure (Parker). D. Popliteal aneurism; digital compression maintained by convalescent patients for three days; mechanical compression, previously intolerable, was rendered possible; a cure was obtained (Monro, J.)

In two instances, digital compression was not employed until after the insufficiency of apparatus had been demonstrated, and their use abandoned:—E. Diffused aneurism of the ham; sixteen days of mechanical compression; ninety-four hours of digital compression, at the end of which the pulsations and the soufflé had disappeared; the success was not permanent; amputation; death (Nélaton). F. Popliteal aneurism; employment of bad apparatus for five days; twenty-four hours of digital compression; ligature; amputation; recovery (Norgate). G. In this instance, both modes of compression failed, but the case was one of inguinal aneurism; compression with the fingers was kept up during four days and four nights; the tumor was greatly ameliorated; the tourniquet having been applied, subsequently produced an eschar; the external iliac artery was tied (Fox).

In these seven cases of failure we find three ligatures subsequently applied, A, F, G, and two amputations for gangrene, E, F. Two ligatures were successful, A, G. One of the two patients subjected to amputation died. Three times, on the contrary, B, C, D, mechanical compression was followed by cure. Even when digital compression had to be abandoned, it modified the tumor advantageously in two cases, C, E. In a third, D, it singularly promoted tolerance of the apparatus.

Let us proceed to the—

SUCCESSFUL CASES.—Two belong to digital compression.

* In M. Broca's work details relating to these facts will be found. I have given only a very brief analysis of them, distinguishing the cases by letters and the names of the observers.

sion, employed primarily and alone:—H. Popliteal aneurism; five hours were sufficient (Vanzetti). I. Colles's patient, who, without assistance, cured himself in seven days of popliteal aneurism, by intermittent, and, of course, very imperfect compression.

Three times digital compression succeeded when mechanical compressors were inapplicable, or abandoned:—J. Femoral aneurism; mechanical compression for four hours; after twenty-four hours digital compression produced a cure (Michaux). K. Popliteal aneurism; various apparatus were tried for a long time, and were given up; forty hours of digital compression (Vanzetti). L. Apparatus intolerable; forty hours afterwards, the employment of the fingers; cure (Knight).

Four times the pressure of the fingers having been combined with the use of the tourniquet, it is difficult to award to each method its due share of merit. This method, which is equivalent to double and alternating compression, has further produced results so rapid and decisive that, perhaps, we ought to dwell on this combination, which would singularly relieve at once both the patient and the surgeon.

M. Popliteal aneurism; tourniquet below the groin; the patient's finger pressing on the pubis; at the end of twenty-four hours, cure (Greatest). N. Popliteal aneurism; digital compression on the pubis; below, Dupuytren's compressor; alternating action, forty-eight hours; recovery. O. Same lesion; same mode of proceeding; sixteen hours were sufficient for the cure (Wood). P. The following case by Mr. Tufnell, is more complicated; in it, however, we find a combination of several modes of compression—Very voluminous popliteal aneurism; compression, according to Bellingham's process, for two days; suspended on account of swelling of the inguinal glands; digital compression on the pubis by the patient and a neighbour; tourniquet acting inferiorly, and alternating with the action of the fingers; the whole kept up for twenty-four hours; the pubic weight* was then employed; cure at the end of seven days.

Lastly, in the following case, digital compression having been employed conjointly and alternately with apparatus and the direct compression of the tumor, it is difficult to assign to it a precise part in the case—Q. Arterio-venous aneurism of the bend of the elbow; direct compression on the tumor for several days, then indirect compression with the tourniquet, which could not be borne; digital compression kept up by the patient, and suspension of every other means; resumption of direct compression on the tumor; digital compression was made by assistants for twenty hours, and then abandoned; it was intrusted to the care of the patient alone; finally, some days after, the aneurism was cured (Nélaton).

We should have more than one remark to make on all these interesting cases, and, in particular, on the place where it is advisable to apply the fingers in cases of popliteal aneurism. Perhaps we should adopt the situation chosen by M. Vanzetti; but this discussion would carry us too far.

In the present state of the question, we may safely announce the following propositions:—

I. Indirect digital compression, continuous, and even intermittent, performed by the able hands of assistants, or by the patient, has succeeded alone, and without the previous or subsequent assistance of any other means, in curing aneurisms.

II. Associated with the tourniquet, and alternating with it, it has produced cures both rapid and extremely

* A conical weight of lead, varying in amount from four to nine pounds, as may be necessary efficiently to compress the artery, where it is superficially situated in the groin. See "Practical Remarks on the Treatment of Aneurism by Compression," by Jolliffe Tufnell, M.R.I.A., &c. Dublin: Fannin & Co. 1861.—TRANSLATOR.

simple. In general, when success is to crown the attempt, it does not tarry.

III. Employed alone, it has cured aneurism when mechanical compression was impracticable, or had to be abandoned; much better borne, in fact, than the latter; digital compression may be applied on points where the skin is already inflamed.

IV. "This compression is the most efficacious and least dangerous of all; it enables us to act only on the artery, avoiding the nerves and neighbouring veins, and sparing the skin"—*Broca*, p. 807.

V. Digital compression may fail; but in this case it most frequently modifies advantageously the state of the aneurism.

VI. We are justified in believing that, alone, it would have succeeded more frequently if it had been practised with more perseverance and regularity than were employed in the above quoted cases.

VII. Never, so far, has any accident been attributable to this proceeding.

VIII. Having been applied successfully, for the first time, by Saviard, subsequently to an operation for aneurism after the old plan, indirect digital compression is essentially of French origin. Hitherto it has not received all the extension and generalization of which, in my opinion, it is susceptible.—*Gazette Hebdomadaire*, 30th October, 1867, p. 778, and *Dublin Quarterly and Medical Journal*.

SOME NEW POINTS IN THE SURGERY OF AMPUTATIONS.

Mr. Stanley made some very practical remarks to his class recently, in the case of a young man rescued, as it were, from the verge of the grave, but who now walked about, much to the delight of that excellent surgeon. The poor fellow had got crushed almost to death under the wheel of an omnibus, which rolled over him, causing a terrible compound fracture or smash of the thigh, near the trochanter, together with severe injury of the knee-joint at the opposite side. "That's a case," said Mr. Stanley, "that you will find in none of the books or journals; yet there it is, full of instruction." The case is as follows:—

A. B., a young man, was brought into St. Bartholomew's, several weeks before, in a state of the utmost collapse, with coldness of the surface universal, and all pulse at the tibials and wrist entirely dissipated. Some stimulus was first given by the house-surgeon, and Mr. Stanley sent for to amputate the limb, as it was quite decided that the femoral artery was ruptured. During the interval before the arrival of Mr. Stanley, the limb was again examined, and found almost completely severed from the body, the two ends of the bone (the femur) grating, and protruding through the wound. All pulsation in the tibials was lost, and the young man evidently dying.

On the arrival of Mr. Stanley, though the operating theatre had been lighted up and warmed, and the patient ready for a careful administration of a small portion of chloroform, previous to the removal of the limb, Mr. Stanley's observant eye did not fail to discover that reaction had not been sufficiently established; so he accordingly ordered some more brandy or wine, with ammonia, to be given. In the meantime, he himself visited his other wards, and allowed a half-hour to elapse, leaving, meanwhile, all the preparations for amputation (possibly at the hip-joint) *in statu quo*. Here it may be well to remember, that all modern statistics point to the great superiority of "primary" over "secondary" amputations. The "system," as the French school of surgeons express it, will not bear a second "shock" a fortnight after it has recovered from the first shock. If a patient's knee be severely injured, and it partially recovers, it will not answer to amputate the same limb above the knee a month or fortnight after; the illness and exhaustion of the patient would be too great. If

amputation be necessary—especially in the field of battle—the closer the knife follows the track of the bullet, the better. Eight or ten hours had already elapsed in this case, yet it would fairly come under the designation of a “primary amputation.” Mr. Stanley was very much pleased, however, to find, what he little expected, that on proceeding to the amputation, a slight “flicker” of pulsation was first “thought to be felt” by some of the young hands in the operating theatre, in the tibial arteries. Then Mr. Stanley himself “thought” he felt it. It was a slight muffled flicker, then a gentle pulsation, when Mr. Stanley ordered the patient to be taken to bed, and the amputation deferred. Good pulsation soon set in above the ankle, and it was determined to save the limb, and probably thus to save the life of the patient, as we have just seen! This is the new point, Mr. Stanley says, that is not to be found in any of the surgical class-books. How long is the surgeon to wait, and how is he to assure himself that the large artery of a limb is, or is not, lacerated? Even chloroform will relax tendinous fasciæ, and cause a new and increased circulation of such vessels as the anterior or posterior tibials. Even removing or adjusting the limb will often take pressure for a moment off such vessels, and renewed circulation be set up! This young man, who now walks about the quadrangle at St. Bartholomew’s, quite well, would, in all probability, have died several weeks since, if this faint “flicker” in the arteries of the leg had not been observed. In the Crimea he would have been operated on in the first hour after the accident. We say the chances were all against him, for he had suffered a severe injury also of the knee of the opposite limb, which, added to amputation at the hip-joint, would have been more than he could have borne with impunity. Mr. Skey entirely agrees with Mr. Stanley, and, in his characteristic manner, states that many limbs would be saved, in such circumstances as these, if the surgeon were a great distance out of town, or at a levée, and could not attend for at least eighteen or twenty-four hours, and gave Nature a fair start in the race! It is quite clear if a surgeon be induced to wait too long—such as three days, as recommended by Mr. Skey—there is the danger of a “secondary” amputation to be encountered, which in large hospitals, in severe injuries, is always to be avoided. If he operate early, it may be very good surgery; but the surgeon may lose his patient from an unnecessary amputation, as in the case just related. “In private practice,” Mr. Stanley observed to his class, “we might get into great disgrace by taking off a limb where all the arteries were subsequently discovered to be healthy;” so that the surgeon cannot be too circumspect in his movements; trusting, also, a great deal to judicious movement or adjustment of the fractured limb, the use of stimuli to increase the heart’s action, and constant search for a pulse in the arteries.—*Medical Circular*.

DR. ALISON’S DIFFERENTIAL STETHOSCOPE.

Considerable interest was excited at the last meeting of the Royal Society by a paper of Dr. Scott Alison on his *Stethophone*, or differential stethoscope. The advantages to be derived from the use of this instrument are, the appreciation of slight differences in the character and duration of the pulmonary and heart sounds, normal and abnormal, and the power of distinguishing between synchronous and rapidly-succeeding sounds in different parts of the chest. Some curious acoustic phenomena have also been made out—the deprivation of hearing in one ear, when the opposite ear receives the same sound in a degree rather more intense; and the division of a composite sound into two parts, one part being heard in one ear, and the other part in the opposite ear. Lastly, while the same sound is heard in the ear in which the sound is received with more intensity, the sound conveyed with lesser intensity to the other

ear is not lost: it fails to cause any sensation in the ear to which it is conveyed, but distinctly augments the sound in the more favoured ear. This is a beautiful illustration of the wise provision which has ordained that both ears may serve their purpose, contributing, without confusion as to the source of sound, to a common result.—*Medical Times and Gazette*.

RED COLOUR OF THE VALVES OF THE HEART IN ALCOHOL POISONING.

Dr. Voltolini, after enumerating the not very certain signs of alcohol poisoning that are known, describes an appearance he has met with, in order that attention may in future be directed to the point. It consists in the Cinnabar-red colour of the pulmonary and aortic valves. The colour cannot be wiped out, and gives to the valves a very beautiful appearance. A remarkable quantity of dark thin blood was found also in the vena cava ascendens and the subclavian vein. Dr. Santlus met with a similar appearance of the valves in 1856. It remains to be seen whether this appearance is characteristic of alcohol poison alone, or is found in other affections inducing fluidity of blood. The author found no mention of it, on the perusal of a great number of accounts of autopsies in which such fluidity prevailed.—*Berlin Med. Zeitung*, 1857, No. 12.—*Medical Times and Gazette*.

APPOINTMENTS.

THOMAS WOERNALD, Esq., Surgeon to St. Bartholomew’s Hospital, has been elected a Member of the Court of Examiners of the Royal College of Surgeons of England, in the Room of the late Benjamin Travers, Esq.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The following gentlemen have been elected examiners for the ensuing year: J. Smyly, Richard Tuohill, T. Byrne, Richard Butcher, M. Stapleton, B. W. Richardson, and Edward Stoker, Esqrs.

DEATHS.

On the 23rd April, suddenly, at his residence, Milford, Co. Donegal, W. H. Molloy, Esq., M.D.

On the 3rd instant, at Cashel, after a short illness, Patrick Heffernan, Esq., M.D. and J.P., aged 54 years. His unexpected death has cast a gloom over Cashel and the surrounding neighbourhood, where he was so well known, and will be long remembered. His remains were followed to the grave by a large number of friends of all persuasions.

PUBLICATIONS RECEIVED.

The Montreal Medical Chronicle.
The Social Evil Practically Considered. By J. Whiteborne, B.A.
On Medicine and Medical Education. By W. T. Gairdner, M.D.
Sutherland and Knox, Edinburgh, 1858.
Labatt on Venereal Disease. Fannin & Co., Dublin, 1858.
The Irish Quarterly Review.
Medical Charities, Ireland, Sixth Annual Report.
The Grievances of the Poor Law Medical Officers. By Richard Griffin, M.R.C.S. London, 1858.
The Unity of Medicine. Baillière, London, 1858.
Robertson’s Suggestions for the Improvement of Hospitals. (Reprint.)

COMMUNICATIONS

Have been received from Dr. Hunter (Manchester), Dr. Streetfield, Dr. Fleming (Douglas), with enclosure.

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CASE OF "WUTZER'S OPERATION" FOR THE RADICAL CURE OF REDUCIBLE INGUINAL HERNIA;

WITH REMARKS.

By CHRISTOPHER FLEMING, M.D., M.R.I.A.,
Surgeon to the Richmond Hospital.

Anxious to test the feasibility, as well as the safety, of the attempt to cure, radically, reducible inguinal hernia by "Wutzer's operation," I availed myself of the following case for that purpose.

William Colgan, aged 25 years, an ordinary shop-porter, applied at hospital with an inguinal hernia, irreducible for about 36 hours. He was of ordinary stature, of medium frame, and in good bodily health. The hernia was on the left side, oblique, about the size of a hen's egg, and extended to the upper part of the scrotum; it was of four years' duration, originated from lifting a heavy weight, and hitherto perfectly reducible, was tolerably controlled by a truss, until within the last month or six weeks, when, notwithstanding every expedient he had recourse to, it repeatedly escaped during his work, whilst stooping or raising a burthen. In one of these efforts it descended, and by no manoeuvre could he manage to reduce it. It was now, at the time of his application at Hospital, remarkably tense, unyielding, and painful; yet his symptoms were strictly local, and with some slight manipulation I replaced the hernia.

Having just read Mr. Spencer Wells' excellent paper on the Radical Cure of Reducible Inguinal Hernia, in the *Dublin Quarterly Journal*, it occurred to me that this was a case suited for its trial. There was no difficulty in persuading the man to submit to the operation, and I admitted him into hospital, after a few days, with that object. The requisite preparatory treatment having been strictly observed, I performed the operation with the assistance of my colleague Mr. Hamilton, on Saturday, the 8th May. I was obliged to use Wutzer's instrument, that of Rothmond's sent to Dublin at the time, being vexatiously defective in every essen-

tial particular. The steps of the operation were as directed by Mr. Wells: the hernia was carefully reduced—the scrotum was invaginated at the proper distance from the external ring—the cylinder, well oiled, was passed within the inguinal canal, and pressed up to the internal ring—the needle transfixed the integuments with ease—its handle was removed—the shield was screwed down with tolerant pressure—and the patient was carried to bed and placed in proper position. The operation was completed as rapidly as its particulars are now given, and little or no pain was complained of—if any, it was referred to the needle puncture.

Five o'clock, p.m. (six hours after operation).—Some little uneasiness under the shield; relieved at once by slight movement of the screw; no swelling of the integuments.

9th May (first day after operation).—No complaint of any moment; some shooting pain between the vicinity of the needle and the crest of the ileum, but not of any moment; passed fair night; made water freely; bowels did not act. Raised up the shield, and examined the integuments underneath; a mere blush of redness along lines of pressure of the sides of the shield; no fulness, no tenderness elsewhere; needle-puncture perfectly free from any. Re-applied shield, with small fold of lint underneath. Some annoyance from testicle, but no more. Low regimen.

Second day after operation.—Visited hospital, Mr. Wilmot with me. Report most favourable; good night; little or no pain or uneasiness. Examined seat of compression; hardly a trace of inflammation of any kind, and no appreciable tenderness there or elsewhere. Re-applied compression-shield. Urine discharged freely; bowels not freed. Restricted diet, as before.

Third day after operation.—Report as usual; same condition of seat of compression. There is a blush of circumscribed redness around the needle puncture—when coughing, or making such exertion, pain more acute in that locality. Examined integuments; put on a piece of chamois leather; directed a cathartic enema.

12th May (fourth day from operation).—No

change worth reporting; all as already noted—bowels not freed since operation. A wineglass of the cathartic infusion of roses every fourth hour to effect.

Fifth day from operation.—No special complaint; principal tenderness near site of needle, where there is some redness and purulent discharge. On moving the cylinder, it is obvious that the cuticle is detached from inverted scrotum plug. Examined skin under shield; all right, but somewhat tender, especially near needle-puncture. Re-applied shield, with slip of French wadding and chamois leather intervening when shortness of needle annoying; bowels freed by red mixture.

Sixth day from operation.—Dr. Hutton and my friend Dr. Richardson at hospital visit. Report favourable; bowels freed this day; perfect freedom from pain in region of needle-puncture, and along canal; discharge from site of puncture, and somewhat more of inflammation, yet circumscribed. Removed needle with ease, and without any appreciable annoyance; cylinder not so easily removed; rather adherent, with tenacious discharge; by gentle rotatory motion succeeded, and appeared not to disturb scrotal plug. Introduced small roll of lint, and raised it, with pressure along inguinal canal, by compress under an oblong truss-pad. Enjoined rest; diet as before.

15th May, (seventh day from operation).—Easy since last night, but complained of strange feel about the bladder and rectum, as if there was an inability to discharge the contents of either; some blush of redness in iliac region, though no tenderness on pressure. Bowels have not acted. Changed pad and lint plug, which appeared to lie fairly. Scrotal fissure and plug apparently lying well, and inguinal canal under uniform compression. Needle-puncture with slight blush of redness around, and as if a small slough would separate. Dressed with simple dressing; inserted no plug into scrotum, but applied uniform compress under a truss-pad, which appeared to act well. More generous diet.

Sunday (eighth day from operation).—No particular change; puncture less inflamed than yesterday; tenderness complained of in scrotal invagination, and copious discharge from it. Lateral compression and pad compression, as before. To have a cathartic enema in the evening, if necessary.

17th, Monday (ninth day from operation).—Some uneasy sensations in bladder and bowels as before, but in other respects no complaint; bowels free; needle wound looking very healthy; no increase of inflammation, or extent of slough; scrotum plug discharging; general feeling, comfortable. Two German physicians at visit; satisfied as to integrity of operation.

18th, Tuesday (tenth day from operation).—No special note different from yesterday; needle puncture healing; scrotum inside of invagination suppurating, and cuticle abraded. Dressed as before.

20th (twelfth day from operation).—Progress favourable; needle-puncture rapidly cicatrizing; copious purulent discharge from invaginated scrotum, and so much tenderness as hardly to admit of pressure of pad; distinct presence of fulness and hardness along tract of inguinal canal.

22nd (fourteenth day from operation).—No complaint of tenderness in site of needle-puncture, but much more towards base of invaginated scrotum; superficial slough, about the size of split pea, detached from needle puncture. Dressing as before.

24th (sixteenth day from operation).—Removed all dressing, and exposed tract of operation; needle puncture presenting a minute granulating surface, with cicatrizing edges; tuck in scrotum diminished in depth and extent; extreme sensitiveness on pressure along inguinal canal, and escape of slight purulent discharge through scrotum fissure; remarkable fulness at external ring, and along corresponding portion of chord, as contrasted with opposite side; canal and seat of internal ring free from any appreciable amount of pain or uneasiness. Dressing as before, and gentle compression with well-adjusted compress and baudage, from below up; difficulty in accomplishing this, so as to prop up the scrotal plug; great satisfaction expressed by patient as to sensation in former seat of hernia, and as to absence of any feeling of protrusion on assuming the erect posture, or making exertion. Allowed to get out of bed and to dress, but not to remain long up.

Eighteenth day from operation.—Convalescence from operation established.

The progress of this case was carefully watched by my resident pupil, Mr. Markey, and its history noted by Mr. Kearney.

REMARKS.

The connexion with the Richmond Surgical Hospital of the Truss Establishment for the Relief of the Ruptured Poor of Ireland, affords a large field for the study of hernia, and gives the surgeon an opportunity of estimating the effects of the treatment which that valuable charity affords.

Limiting my remarks to the subject of reducible inguinal hernia, which is at present under consideration, it must be admitted that cases are few in which the treatment adopted is otherwise than palliative; and that, apart from its many inconveniences, such treatment is too often not sufficiently protective against several of the casualties incidental to the disease. It is hence very desirable that an effort should be made to establish, if possible, a mode of treatment whereby a radical cure of the disease might be accomplished, or whereby, if ordinary means of relief should be found inoperative, alterations in the conditions of such cases might render those means more effectual. Mr. Spencer Wells, of London, in the very excellent communication I have alluded to, has placed be-

fore the profession at large the details of an operation which he warmly advocates to accomplish such objects; and he makes a special appeal to the profession in Ireland, "to assist in hastening the general recognition of its value." I was anxious to meet his wish, and selected a case which possessed every indication for successful result, as especially noted by Mr. Wells. The subject was young and healthy; he led a life of active bodily exercise; his hernia was of moderate bulk; it was perfectly reducible; and the inguinal canal was not much shortened. The result of the operation has been, so far as the case has proceeded, successful, and tends, at all events, to confirm the statement advanced, that there is perfect freedom from danger in its performance. I certainly will not hesitate to repeat the operation in those cases in which it may appear to be justifiable. I apprehend, however, I regret to say, that they must be few. The majority of the cases of reducible inguinal hernia which I have witnessed amongst the ruptured poor (apart from important local considerations), are identified with chronic pulmonary disease, or chronic urinary disease; and those classes of disease are often relievable, but are seldom perfectly curable. Under those circumstances it would be hardly fair to test the value of any operation, with a view to radical cure, or indeed even to hazard its adoption.

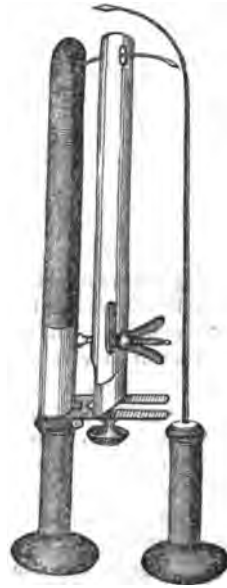
I have at present in hospital a young recruit, aged 18 years, who was rejected for hernia, the result of injury. The hernia is "direct inguinal," and the boy is most anxious for its radical cure. The case is under observation, but I question very much the applicability of "Wutzer's operation" to any such form of hernia. It is not to me, I acknowledge, very intelligible; but, independent of this, another contingency exists, which has not escaped the observation of Mr. Spencer Wells—and that is, "a great sensibility of the spermatic chord," in the inguinal canal especially. The pain superinduced by the passage of the finger into it produces syncope, it is so intolerable. An operation in such case is not advisable.

I have, however, transgressed my limits, and I feel not competent to enter further on the subject. Many reflections suggest themselves in connexion with the anatomical conditions of reducible inguinal hernia, and the structural alterations and connexions of their respective sacs, the investigation

of which would be more than interesting, but would be presumptuous on my part, in reference to an operation of which I have had so limited an experience.

Mr. Spencer Wells' paper contains details, operative and statistical, which will be found as interesting as they are instructive. They merit the attention of the hospital surgeon. This operation of Wutzer's was suggested by him no less than twenty years back; it has had a large run in Germany, but yet limited to certain localities. In Great Britain, through Mr. Wells' advocacy, it has been under observation for ten years; in Ireland it has not been hitherto performed.

Mr. Wells has kindly placed at my disposal the casts and woodcuts of the diagrams in his paper. I have selected those which illustrate the most important particulars connected with the operation.



The first diagram gives a representation of the original instrument of Wutzer, with its needle altogether detached, and again, in position for use. Its point of exit from the wooden cylinder, and its passage through the upper part of the compressing shield, are well shown. The perpendicular and the horizontal screws, with their respective relations to the cylinder and shield, are equally well delineated.

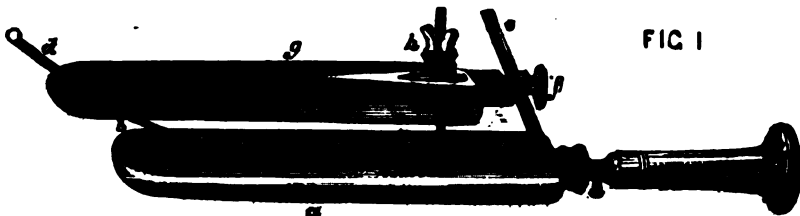


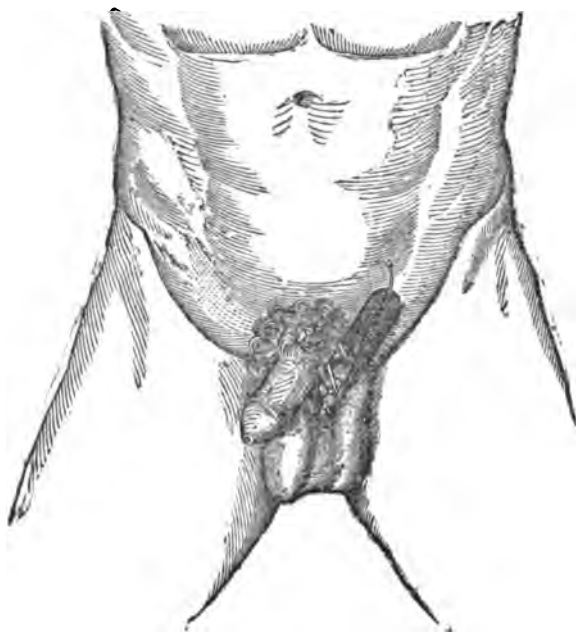
FIG 1

Rothmond's instrument is represented in the second cut; it is complete, and its several portions are connected. Its more obvious im-

provements are visible at the needle-point (b), which is moveable, and protected with a knob (d); and at the handle there is a spring, to

prevent the recoil of the needle. Moreover, there are differences in the form of the cylinder (a) and

shield (g), which special reference to Mr. Wells' paper will explain.



In the third diagram a good idea is given of the situation of the instrument, when permanently fixed, after the completion of the operation.

Wutzer's instrument is certainly a much less complicated instrument than Rothmond's. A small piece of cork or wax protects the point sufficiently; and I cannot imagine how any amount of pressure could so act upon the end of the needle, as to make it recoil. It is very elastic, and I doubt if such force could be applied after the operation, whilst the needle is in its canal in the cylinder.

I am inclined to suggest that the needle should be much longer, its present length not admitting with ease of any appreciable protecting or compressing material under the shield. Neither am I satisfied with the provision made for the security of posi-

tion of the cylinder, or for its easy removal. As at present arranged, it and the shield are actually merely slung on the end of the needle, no matter how tightly the horizontal screw may be fixed; and they are hence subjected to perpetual disturbance. To facilitate its removal, an ointment, well smeared over the cylinder, might be better than oil; and Rothmond's plan would almost insure the detachment of the cuticle from the invaginated scrotum; but, at the same time, the extreme delicacy of the skin here must be borne in mind, and especially when subjected to that amount of general compression considered so requisite for cure. I, at present, see no objection to allow the cylinder to remain for some days after the removal of the needle, until full suppuration is established along its tract.



The three last diagrams require no explanation, representing, as they do, those anatomical conditions prior and subsequent to the operation, which must be intelligible.

The surgical pathologist cannot, however, divest himself of the reflection, that the sacs of the class of hernia now considered are not reducible—at all events, not fully so; their external connexion

will not admit of their reduction. Indeed, the advocates for the injection of hernial sacs, as a means of radical cure of the disease, would never sanction the treatment on other data. Would Velpeau propose, or Mr. Ferguson approve of, iodine injection otherwise?

In "Wutzer's operation," then, *a portion, more or less, of the hernial sac must be invaginated with the scrotum.* It may, be no disadvantage.

HISTORY OF A CASE OF URINARY FISTULA, ATTENDED WITH UNUSUAL SYMPTOMS,

AND SUCCESSFULLY TREATED BY CAUTERIZATION.

By JOHN HUNTER, Esq.,

Manchester,

Licentiate of the King and Queen's College of Physicians, and of the Royal College of Surgeons, Ireland.

I have thought the following case deserving of publication, as I have not seen or read of one similar to it; neither have some surgeons of large experience, with whom I have conversed, met with such. I have also thought that a short account of the case may be useful, from the success which attended its treatment.

Case.—On the 1st of March, 1858, I was consulted by a young man, aged 19, for a fistula in the neighbourhood of the anus, which had existed for six months. He had the aspect, but not the physical signs, of phthisis. On local examination, a fistula was found at the verge of the anus, on the left side, which, on the introduction of a probe, could be traced upwards for more than two inches. It did not open into the bowel. Having got the health of the patient into as good a state as possible, and the bowels having been cleared out, I proceeded to the operation. Having introduced a probe-pointed bistoury on a director, and feeling the end of it with my left fore-finger, introduced through the anus, I pushed the knife through the intervening mucous membrane, and divided the lower part of the bowel for about two inches. Lint was introduced into the wound, and an anodyne given. The next day a severe attack of diarrhoea occurred, which was relieved by the Liq. Ferri Pernitrat: in half-drachm doses.

The patient gradually improved in health, but the wound showed no disposition to heal; and at length the patient (who was very stupid) mentioned "that water flowed from the wound." At first I attributed this to some serous oozing, but subsequently, on one occasion, when the patient got up when I was present to make water, I saw that a considerable quantity of urine dribbled from the fistula. The cause of the non-healing of the wound was now manifest; and as the urine only flowed from the wound during micturition, it was to be inferred that the communication was not with

the bladder, but with the urethra—probably with the bulbous or membranous portion. The means I adopted under these untoward circumstances were simply these:—I introduced a full-sized catheter into the bladder, and secured it there, hoping that the urine would now no longer flow through the wound. This partly succeeded; but the urine still continuing to flow (though in smaller quantities) from behind, I introduced a piece of iron wire, and with some difficulty passed it into the sinus leading to the urethra, and which was an offshoot from the fistula. Not having the electrical battery and platinum wire recommended in similar cases, I held a spirit-lamp to the external end of the wire (having previously placed the patient under chloroform), and when I had raised the temperature of the wire sufficiently, I withdrew it. The effect was most satisfactory. The next day some water still flowed from the fistula, but on the day succeeding not a drop passed, except by the natural channel.

From this time the wound began to heal; and at the present date (April 24th, 1858) the patient is quite recovered, the wound having completely healed, and his general health being restored.

CASE OF PHLEGMASIA DOLENS IN AN ELDERLY PERSON.

By CHARLES D. CAMPBELL, M.D.,

Oldcastle.

I was lately called on to attend a lady, aged 67, whom I found to have the left leg considerably swollen—nearly double the size of the other. The swelling extended from the hip to the foot, and was of a tense and elastic nature, pressure not producing pitting in any portion of the limb, except at the spaces below the malleoli, where the impress of the fingers was slightly and momentarily retained. The surface presented a white and shining appearance, and the temperature of the limb was considerably augmented. The whole limb was more or less sore to the touch, but there was considerable tenderness in the inguinal region, and along the course of the femoral vessels. The inguinal glands were also slightly enlarged, and there was a cord-like hardness, which I traced two or three inches down the limb; but the slightest manipulation produced such pain, that I desisted from seeking for it further. She complained most of the calf of the leg, which "felt as if the sinews were over-stretched." The limb was powerless; she was unable even to turn or move in the bed. There was a good deal of constitutional sympathy; the pulse 112, small, but rather hard; the tongue not much coated, but dryish; and there was intense thirst. There was slight headache and restlessness; the bowels constipated; the urine high-coloured, turbid, and depositing a pinkish sedi-

ment, of specific gravity 1025, having an acid reaction, not showing any trace of albumen.

She gave the following account of her illness:—Six days previous to my visit, she was suddenly seized with chilliness and faintness, to which, in a short time, succeeded copious perspiration, which lasted several hours, and weakened her considerably. About the same time she felt a numbness in the left hip and pelvic region, and in the course of that night she experienced the same sensation in the toes and foot. The following day the calf of the leg became painful; the leg was then found to be a little swollen. The symptoms continued increasing, till they reached the state in which they were when I first saw her.

The treatment I adopted was, in the first instance, leeches to the inguinal region, followed by fomentations to the whole limb, and in the intervals having it wrapped in flannel, and mild aperients and diuretics. In four or five days the swelling assumed more of an œdematous character, and I then had turpentine added to the fomentations; and subsequently I painted the limb with Tr. Iodine, in the course of the absorbents, and applied a flannel bandage. At the end of a fortnight from my first visit, the swelling, pain, and tenderness had almost entirely subsided, and the limb presented scarcely any appearance of the disease, although it had not regained its full power of motion. Considerable debility, however, remained, the pulse being very weak, and ranging between 90 and 100. At the time the attack set in, this woman had been confined to bed for four or five weeks, with some affection of her chest—a severe cough, with a copious expectoration of brownish-coloured sputa. At the time I was called in, she had still some cough; and, on examining her chest, I detected some bronchitic râles in the larger tubes.

This woman was the mother of twelve children, but never at any time had an attack of this kind; in fact she had never required medical aid, either during or subsequent to any of her confinements. I made particular inquiries as to the state of the uterus, but could discover no sign of cancer or other serious disease. She had, however, been subject to prolapsus uteri since her last confinement, twenty-five years ago, and for the last eleven years has been accustomed occasionally to wear a pessary; but there has not been any change or aggravation of the symptoms connected with the prolapsus uteri of late. She has also suffered for some years from chronic rheumatism, but confined to the joints of the fingers and toes. She has not had any pain, or symptom of rheumatism, of the hip-joint. During one of my visits, she stated, that some years ago she had been very actively treated for what she was told was disease of her liver. This led me to examine the abdomen, but I could not discover anything abnormal, as to size or otherwise, with reference to the liver or other viscera; but between the epigastrium and

umbilicus there was a very strong pulsation, limited to two or three inches in extent. With the stethoscope I was unable to detect anything like a distinct bruit, although I examined it both in the recumbent and sitting posture; there was, however, considerable difference in the force and intensity of the pulsation in these two postures: in the recumbent it was so strong, that I felt the stethoscope and my head raised at each beat; but on changing her to the sitting posture, it became gradually weaker, till it was scarce perceptible.

As this case occurred in a woman of such an advanced age, and seemingly unconnected with any of the diseases to which writers have usually ascribed it, I have ventured to think it might not be deemed altogether unworthy of record.

ON THE STATISTICS OF SMALL-POX AND VAC- CINATION IN IRELAND.

By ROBERT M'DONNELL, M.D., M.R.I.A.,
Fellow of the Royal College of Surgeons in Ireland.

(Read before the Dublin Statistical Society,
May 17th, 1858.)

That the subject which I am about to bring before the society this evening is one deserving of the attention of the public, is made sufficiently obvious by the rather startling fact, that there is good reason to believe that no part of the civilized world is, in the present day, so severely scourged by small-pox as Ireland.

There is, I say, good reason to believe—for the information which I have been able to collect on this subject does not enable me to speak with certainty; as there does not exist in this island any scheme for the registration of deaths, it is impossible to obtain any positive statistical knowledge on many important subjects connected with the status of disease.

It is my wish in the following communication, 1st, to show what evidence there is that small-pox prevails more in Ireland than over the rest of Europe; 2ndly, to examine into the causes which lead to its prevalence in this country; and lastly, to suggest those remedies whereby the ravages of this terrible disease may be checked.

Before passing on, however, to the consideration of these topics, it is, indeed, necessary for my purpose, and will not, I conceive, prove uninteresting, to look back upon the history of small-pox, and trace it through those periods when it was met by inoculation and vaccination.

The able report relating to the history and practice of vaccination, which was last year laid before the General Board of Health by John Simon, Esq., gives a greater amount of information than is elsewhere to be found on this subject; and from this masterly production, as well as from Moore's History of Small-pox, I freely quote those

passages which show how terrific a monster once stalked the earth in the form of small-pox, and which prove to us what madness it is, through forgetfulness of what historical record teaches, to run the risk of having its fearful ravages again among us.

To know, says Mr. Simon, of small-pox, that it is fatal to a very large proportion of those whom it attacks; that it is eminently infectious from person to person; that it seizes, with very few exceptions, on all who for the first time come within its range; this, if one reflects on it, is to have read the story of its ravages. How in 1518 it concurred with fire, and sword, and famine, and bloodhounds, to complete the depopulation of St. Domingo; how, soon afterwards, in Mexico, it even surpassed the cruelties of conquest, smiting down three and a-half millions of population, and leaving none to bury them; how in Brazil, in 1563, it extirpated whole races of men, sufficiently attest its extreme malignity.

In periods less remote the same dreadful pestilence depopulated Greenland and Iceland. In civilized Europe, with its constant intercourse of towns and countries, the disease was at least as deadly. Its strength was differently distributed; not as in Greenland, twice or thrice in a century, but incessantly, the fatal sickle was in motion, and the harvest gathered in from day to day. The annual ravages of small-pox in Europe have been estimated at half a million of lives. In France a tenth part of all deaths was estimated to occur from small-pox; in Sweden about the same.

"For a popular notion of the disease, however, it may be enough to cite what it did in royal families. In the circle of William III., for instance: his father and mother died of it, and not least, his wife; and his uncle, the Duke of Gloucester; his cousins, the eldest son and youngest daughter of James II.; he himself (like his friend Bentinck) had suffered from it most severely, barely surviving with a constitution damaged for life."

Scarcely less fatal was it in the Court of Austria, nor did the other crowned heads throughout Europe escape. In 1727 an Emperor of Russia fell a victim to it; in 1774 a King of France; in 1711 a Dauphin; in 1741 a Queen of Sweden.

It would be thought an awful epidemic, now-a-days, that would strike like this in high places. Yet the death which it spread around tells but half the tale of the ravages of this fearful pestilence. Loss of hearing, loss of sight,* hideous deformity, consumption, was the lot of many who survived its first onset.

Such was the state of things in the beginning of the eighteenth century; and now, for the first time, a story reached these islands, that we could,

so to speak, make terms with this loathsome and murderous enemy; that by receiving it of our own accord we could disarm it; that we could, as it was expressed, buy the small-pox cheap; that the susceptibility to contract its fatal infection could be exhausted by artificial means, giving, indeed, the disease, but giving it so mildly that life was almost unendangered in the process.

Honour be to the memory of that brave lady, who, by her example more convincingly than by her pen, introduced into England a knowledge of inoculation. In 1717, Lady Mary Wortley Montague's well-known letter from Adrianople effectually awakened public curiosity. While still resident in Turkey, she showed her faith in inoculation, by submitting her son to the operation; and four years later, after her return to London, she had the first demonstration of the Eastern practice made there almost publicly on her daughter.

The result being most satisfactory, others were encouraged to try the experiment, and from this time the inoculation of small pox possessed a recognized, though not an uncontested place in medical practice—not uncontested, for innumerable objections were raised which interfered with its general adoption. It was said to be wicked and irreligious, to savour strongly of magic, to promote vice and immorality, and to be an inspiration of the devil.

It is written in Massey's Sermon against Inoculation, "Let the atheist and the scoffer, the heathen and the unbeliever, inoculate and be inoculated;" and M. Hecquet opposed its introduction into France on the entertaining grounds that it had arisen among Mahomedans, and had been well received in a Protestant country.*

Notwithstanding the opposition, however, the practice of inoculation became very generally adopted; the advantages arising from it to the nation were, however, of a very doubtful character. It was one of those boons which, to be really useful, must be accepted by all, and this not being the case, it became a bane instead of a blessing. "However beneficial," says Dimsdale,† in 1779—"However beneficial inoculation prove to individuals, the bills of mortality incontestably shew that in London more persons have died since the introduction of that practice. The poor, who have little care of preserving their lives beyond the getting of their daily bread, make a very large part of mankind. Their prejudices are strong and not easily overcome by reason; hence, while the inoculation of the wealthy keeps up a perpetual source of infection, many others, who either cannot afford, or do not choose to adopt the same method, are continually exposed to the distemper."

* See Massey's Sermon "against the dangerous and sinful practice of Inoculation." London, 1722. De La Faye's Sermon on "Inoculation an indefensible practice." Also Barnes' Life of Jenner, vol. i. p. 231.

† Dimsdale, Present Method of Inoculating for the Small Pox, 1779.

* Sir Gilbert Blane states, that two-thirds of those who applied at the hospital for the indigent blind, had lost their sight by small-pox.—*Med. Ch. Transactions*, vol. x.

"It is by these means, that while inoculation may be justly esteemed one of the greatest improvements ever introduced into the medical art, it occasions many to fall a sacrifice to what has obtained the distinction of the natural disease. Out of every 1,000 deaths, the number attributed to small pox, during the first thirty years of the 18th century, before inoculation could yet have had any effect upon them, amounted to 74. During an equal number of years, at the end of the century, they amounted to 95."

It appeared, therefore, that however well the idea of inoculation seemed in theory, there were insuperable objections practically; that so long as it was but partially adopted, far from proving beneficial to the nation, it proved actually pernicious. Near a century's experience of it shewed in London an increased mortality in about the proportion of five to four.

It cannot be denied that this was indeed a gloomy prospect for mankind—an ever increasing flood of desolation—a dark tide of destruction which seemed to roll onward, merely gathering strength and power from man's efforts to stay it.

Such was the state of things, when, at the close of the last century, Edward Jenner conferred upon mankind what may probably be regarded as the greatest physical blessing ever revealed by God to the world, through the genius of man.

Time would not admit of my entering upon the history of vaccination, nor is it necessary to my purpose to do so. It is enough to say, that Jenner's discovery was made known in 1798, in a paper entitled, an Inquiry into the causes and effects of Variolæ Vaccinæ; that this was followed up by a series of productions, forming as a whole, a masterpiece of medical induction. The experience of many years, observations made with patience and caution, were simply and truthfully narrated, and with a degree of modesty, and yet of confidence, truly admirable.

In February, 1803, Jenner took his seat, for the first time, as president of the Royal Jennerian Institution, a society (founded by voluntary contributions) "for the extermination of small pox" by means of vaccination.

How far the bold project of this society has been effected throughout Europe let us now inquire, and for this purpose let me extract some of the statements from the admirable report on small pox and vaccination, presented to the president and council of the Epidemiological Society, March, 1851.

A glance at the tables in this report shews, that the hope of exterminating small pox was not a vain one; for it appears beyond question, that in some countries, which during the last century suffered as much, or even more than England from small pox, a judicious system of compulsory vaccination has almost driven out the disease.

Thus, in Sweden, during a period of ten years at the close of the last century, the mortality from small pox amounted to 71 deaths per thousand

deaths; during the same period of ten years, from 1840-50, in the same country, deaths from small pox are reduced to 2·7 deaths per thousand deaths—2·7 per thousand instead of 71.

Trieste offers even a better example of the benefits of vaccination. Making a similar comparison we have, during ten years, ending 1846, a mortality of 5 per thousand deaths, from all causes, against 142 per thousand, previous to the introduction of vaccination.

A more striking proof of the efficacy of vaccination is to be found in the fact, that in the kingdom of Hanover, in the year 1847, out of a total mortality of 45,850, there were but eight deaths from small pox, or 1 in 5,728; and we find it stated, on the highest medical authority, that in Denmark, small pox had at one time disappeared before the defensive influence of compelled vaccination; though it is added, that chance and a careless security, engendered by the absence of the pest, have led to its reintroduction there.

How little England has reaped the advantage of the great discovery made by one of her own sons—how shamefully the great boon of vaccination has been allowed to lie undeveloped in the land which gave it birth, is obvious on looking at the report to which I have just alluded. In this report it is stated, that on looking at the tables contained in it, we cannot fail to be struck by the fact, that the proportionate mortality from small pox in England and Wales, is considerably more than double what it is in any country in which vaccination is compulsory. So, likewise, it may be seen, on reference to the tables at the end of the report, that the proportion of deaths from small pox in London, to the total mortality, is three times, and in Glasgow as much as six times, what it is in Brussels, Berlin, or Copenhagen.

However lamentable we may consider these statements regarding England and Scotland, we must nevertheless feel that we are more closely concerned in the part of the report which relates to Ireland; and this shows even a worse state of things than exists in the sister kingdom. The mortality from small pox throughout all Ireland, for the ten years ending 1841, is said very much to exceed that of any part of England, or even Glasgow, amounting in Cork to as many as 30·5 deaths per thousand, and in Connaught to as many as 60 per thousand.

That these statistics are not strictly to be relied on, is admitted in the Appendix; for, says the Report, "Even at the present day, Ireland, like Scotland, is entirely unprovided with any system for registering the number of births and deaths. By means of a decennial census, commenced in 1821, we derive whatever knowledge we have of the vital statistics of the country."

That such a source of information is not very accurate, when we come to deal with the statistics of disease, may, I think, be inferred from some of the figures to be found in that part of the census

of 1851 relating to the status of disease. It is here stated that there were in Ireland, on the night of the 30th of March, 1851, 888 cases of small-pox. Of these there were 363 in their own homes; 9 in the infirmaries, fever and general hospitals, and other asylums and gaols, &c.; and 516 in the workhouse hospitals.*

I have no grounds for contradicting this statement, but I admit that it does not sound like truth, that there should be, in the workhouse hospitals alone, a considerably greater number of cases of small-pox than in all the rest of Ireland put together.

Although, therefore, I should hope that the Report to which I have referred, presented to the President and Council of the Epidemiological Society, may somewhat mistake the amount of mortality from small-pox in this island, yet there is too good reason to know that it is, nevertheless, surprisingly great.

In that part of the Irish Census Returns of 1851 which gives the report on the tables of deaths, we learn, that during the decade which terminated on the 30th of March that year, the total mortality amounted to about 1,360,000; the deaths from small-pox alone amounting to 38,200 in the same period; i. e., a mortality from small-pox of nearly 29 per 1,000 deaths from all causes; not far from double that of London, and 10 and 15 times greater than in some countries of the continent of Europe.

The prevalence of small-pox in Ireland may, it seems, be attributed to three causes:—First, that apathy and carelessness which naturally arises when the danger is no longer imminent. At the commencement of this century, all classes, rich and poor, knew small-pox so well, and dreaded it so much, that the protective influence of vaccination was greedily sought after by even the uneducated. The pest being thus checked, there gradually grew up a generation who knew not small-pox—at least small-pox clad in its horrors. Forgetful or ignorant of the bane, they did not seek for the antidote; and thus thousands passed through the period of childhood unvaccinated.

In the next place, no active steps were taken by the legislature to urge on, by either direct or indirect compulsion, the practice of vaccination. No measures were adopted for this purpose, as in other European States, by making, for instance, vaccination an indispensable preliminary to entering any school or public service; by imposing fines for neglect of it; or by giving decorations and rewards to those medical men who had distinguished themselves by zeal in the discharge of their duty as vaccinators.

But finally—and, indeed, contributing more than any other cause to the support of small-pox among us—we find the mischievous practice of inoculation for the natural disease.

Although this practice is now illegal, it is, nevertheless, still common throughout Ireland, and is diligently followed by itinerant inoculators, who, from interested motives, keep up among the ignorant the prejudice in favour of inoculation, by strong assurances of the inefficacy of vaccination.

I have already sufficiently shown how injurious inoculation is to a community, by ever keeping among them the germs of the disease; it is but too obvious how pernicious the influence of inoculation must thus be amid a people who, for the reasons already given, are in so unprotected a condition as those in this country.

The prevalence of small-pox in Ireland, and the causes of its prevalence, have not escaped the notice of the Poor-law Commissioners; nor have they failed to make strong representations on this subject to the government; hitherto, however, without success.

In every one of the reports made under the Medical Charities' Act, the commissioners have expressed their dissatisfaction at the manner in which the vaccination of the poor has been carried out, and their apprehension as to the result which may reasonably be expected, as the consequence of such inefficient vaccination. In their last report they state, that they do not believe the evil complained of to be in any way attributable to the guardians, managing committees of dispensaries, or their medical officers, whom they have always found willingly to co-operate with them in their endeavours to give full effect to the existing law; but they go on to say, that it is owing to the apathy on the part of the poor, and the unfortunate prejudice strongly and extensively prevailing amongst them in favour of inoculation.

On these grounds they urge the necessity of providing some legislative remedy for the inefficiency of the present system of vaccination, and they venture to suggest the enactment of a system of compulsory vaccination, such as is now in force in England, in conjunction with the English Act for the registration of births, deaths, and marriages, without which it is difficult to see how compulsory vaccination could be efficiently enforced.

But the question is, will any compulsory Act ever work efficiently in this country, while so strong a prejudice exists in favor of inoculation, which, although illegal, is still so general; I should fear not; measures must be adopted for getting rid of it. This custom, so pernicious to the community, must, if I may so express myself, be bought up.

Let us assume that the present population of Ireland is six millions and a-half, and that a thirtieth of this gives the births of one year. Let us from these total annual births deduct one-fourth on account of children who die at a very early age, or are born of parents too wealthy to seek gratuitous vaccination; and let us presume that the remaining three-fourths are children of the poor, and that they are to be vaccinated for 2s. 6d. a head,

* The Census of Ireland, 1851.—Report on the Status of Disease, 1854, p. 122.

paid to the vaccinator, on giving proof that the operation has been successfully performed. Assuming all this, it may be stated, in round numbers, that £20,000 would be sufficient to defray the expense of vaccinating three-fourths of the children, i.e., all the poor children born annually in Ireland.

Let such remuneration be offered to the medical officers of dispensaries, and however little fault the Poor Law Commissioners may have to find with them at present, they will then have still less. Medical men will have a strong inducement to beat inoculators out of the field, and they will succeed, for in speaking with warmth in favour of the protective power of vaccination, they have truth on their side. £20,000 per annum would be buying out small-pox cheap enough. But this would not do without introducing, as in England, an Act for the registration of births and vaccinations.

From various facts, as well as deficiency in this communication, it is obvious, as indeed it must be to every one, how great a loss it is in this country having no registration of births and deaths. The full importance of the information derivable from such registration, in so far as regards the statistics of life, health and disease, can be nowhere more felt than by the society I have the honor to address; and I should be delighted to think that this society would make some move in this matter, as any representation coming from so distinguished a body would be certain to meet with fullest attention.

CASE OF SCIRRHUS OF THE PYLORUS.

By ROBERT D. LYONS, M.B., M.R.I.A.

Physician to Jervis-street Hospital, &c.,

(Communicated to the Pathological Society, April 10th.)

The patient was a man of about 40 or 45 years of age, and was admitted into Jervis-street Hospital about three weeks since. He was extremely emaciated generally, and presented a certain amount of cachectic appearance; but he wanted some of the peculiarities of that characteristic aspect which we find to attend cancerous diseases. The face, as well as the other parts of the body, was exceedingly thin and emaciated, but it wanted the lemon-yellow tint which we often see in advanced malignant diseases. He had constant vomiting, up to the period of his admission into hospital, and for a day or two subsequently, and occasionally ejected small quantities of blood; but up to this period not to a remarkable amount. About ten minutes, or from a quarter of an hour to twenty minutes, after he took food of any kind, liquid or solid, he began to feel extraordinary uneasiness in his stomach. This uneasiness was attended with a kind of pressing movement, that he described and figured to us as taking place in the epigastrium, in a direction from

left to right; and it was, in all probability, caused by the efforts of the stomach to pass some of the food through the pylorus. The vomiting, as I said, was continued up to the period of his admission into hospital, and for a day or two subsequently. There was, at this time, nothing very characteristic but the vomiting and emaciation. He occasionally, he said, vomited a quantity of clear, watery-looking fluid; and, as is not unusual in such cases, the quantity was greater than the quantity of fluid drunk. The parietes of the abdomen were exceedingly thin, but it was only occasionally we could satisfy ourselves of the presence of a tumor in the epigastric region. On some days I was able to define the tumor very clearly. On one or two occasions—and they were those occasions on which the tumor was very prominent—there was a manifest pulsation communicated to it, sensible to the fingers, and visible from some distance. The diagnosis was not, of course, attended with any difficulties in this case. The vomiting occurring, not immediately on taking food, but at intervals varying from a quarter of an hour to twenty minutes, and so continuing until he had, as it were, relieved the stomach, led us at once, taken in conjunction with the presence of a tumor in the epigastric region, to suppose that it was a case of cancer of the pylorus, probably of the scirrhus kind. It occurred to me, as the man was so exceedingly emaciated, that we might manage to regulate his diet in such a way as to give him a chance of retaining some moderate portion of his food; and I adopted the following expedient:—I recommended him to take his food, whether fluid or solid, in exceedingly small portions at a time, and to spend an hour, or an hour and a half if necessary, in thus consuming his breakfast and dinner. I cannot say positively that on the first day he adopted this method he retained all the food taken; but for a period of eight days previous to death he had no vomiting whatever, and the poor creature got considerable relief from his sufferings; and he certainly began to look better, and apparently to get up some slight amount of flesh. He was able to consume a fair share of nourishment, and by this expedient was enabled to retain it all. He was apparently progressing so far satisfactorily—of course we had no ultimate hope of the case—when one day, just at the hour of morning visit, I found that he had been seized suddenly with profuse vomiting. The chamber-pot was filled, and a considerable quantity of the matter ejected was lying about the floor. There must have been several quarts ejected in all. It is unnecessary to say that such profuse hæmorrhage was attended with a fatal result. The patient died in the course of that day. This is a specimen of the fluid ejected from his stomach, and it is an admirable example of the black vomit which we occasionally find in such cases. I brought, for the purpose of comparison, one of the specimens I had the honour of exhibiting to the Society before—a specimen of the

true black vomit of the yellow fever of Lisbon. You observe that the fluid I now exhibit has the merit of being, if anything, still blacker than that of the yellow fever. We examined the vomit, and found that it had a specific gravity of 1015, while the specific gravity of that of yellow fever was 1009. It had a highly acid reaction, and was not in any way affected by heat or nitric acid, showing an absence of albumen.

On *post-mortem* examination, a very well marked specimen of scirrhus of the pylorus presented itself. The stomach was enormously distended, and contained some two or three quarts of a dark fluid, somewhat similar to the black vomit. On emptying out the fluid we found the gastric surface covered with dark-coloured veins. There was no cancerous deposit whatever in any other part of the stomach. I made a section through the tumor, in such a way as to leave the pyloric orifice intact. You observe it is greatly contracted. There were some glandular nodules along the convex border of the stomach.

Proceedings of Societies.

BELFAST CLINICAL AND PATHOLOGICAL SOCIETY.

Session 1857-58.

March 6th, 1858.

Cystic Tumor of Neck.

Mr. BROWNE, V.P., introduced a woman affected with a tumor on the anterior surface of the neck, in the median line. Mr. Browne believed it to be a cyst, and unconnected with the thyroid body. There was no enlargement of the lateral lobes of the thyroid. The patient stated that the tumor had suppurated about nine months since. Mr. Browne proposed to tap, and then throw in an injection containing iodine; and stated, that if this proved unsuccessful, he would employ a seton.

Case of Traumatic Tetanus.

The PRESIDENT read the following case of tetanus:—W. Lee, æt. 35, coachman, was admitted into General Hospital December 30th, 1857. A fortnight before, he received a lacerated wound, about one inch in extent, on the upper and back part of the head, in consequence of a fall from a horse. The wound had been dressed with adhesive plaster, and was not yet healed. On December 26th he first felt occasional slight pains under the right shoulder, which he attributed to a blow received on the back, on the previous day. On the 27th he felt worse, with pain and spasms all over the back and shoulders, with difficulty of deglutition, and pain about the jaws and throat, and inability to expand the chest. The day following

he was obliged to go to bed, being unable to move his legs or to open his mouth. He had lost all power of flexion of the muscles, and suffered from rigidity and cramps. On admission into hospital, he complained of violent and highly-painful spasms of the neck, cheek, abdomen, and lower extremities, occurring every ten or twenty minutes, and causing opisthotonos. There is permanent muscular rigidity. He describes the spasms as commencing at the epigastrium. The arms are completely free from spasms and rigidity. A turpentine enema was administered, which caused a copious and very foetid evacuation; and the patient expressed himself much relieved. Calomel and opium were then administered. The day subsequent the enema was twice repeated, and the calomel and opium continued; the spasms were not so frequent, and he had slept pretty well the previous night. On January 1st, decided signs of salivation having appeared, the calomel was discontinued. During all this time he suffered from profuse perspirations, and there was a peculiar foetid odour from the body. Opium, with beef-tea and nutritive enemata, were now administered; but he gradually sank, and death took place on January 6th. It was afterwards elicited that he had been intoxicated on Christmas-day, and that he had been much exposed to cold and moisture.

Dr. DUNLOP stated that he had seen tetanus treated successfully by morphia and chloroform, and had observed the happiest results from the topical action of vapour of chloroform.

March 13th, 1858.

The PRESIDENT in the Chair.

Cystic Tumor of Neck.

The PRESIDENT introduced a woman who, fifteen years before, had become the subject of a tumor of the neck. About four years since it had been tapped, and more than a pint of fluid, containing cholesterine, withdrawn; and the cyst had been injected with a quantity of solution of iodine, which had the effect of diminishing its bulk. It was tapped a second time, when about half a pint of fluid was taken away. About two years since it was again tapped and injected, after which it was reduced to about the size of a hen's egg, when the President proposed to open and treat it as an ordinary abscess, which the patient declined. The base, as it were, of the original tumor remains, from which an elongated cyst projects, larger than a turkey's egg. On the inner side of this, and resting on the side of the trachea, there is a separate cyst, of almost equal size, but distinct from the original one. The tumor does not interfere with deglutition or respiration; and its attachments are indurated, and embrace the great vessels. The President proposed to again tap both cysts, and inject with iodine, and afterwards to treat them in the manner of an ordinary abscess.

The PRESIDENT also exhibited a

Calculus extracted from the urethra of a boy,

and observed, that calculous affections were at present more frequent in this neighbourhood than in former years.

Case of Urinary Abscess.

Mr. WARWICK detailed the case of a man of strumous habit, aged about 26, who had been attacked, six or eight weeks since, with inflammation and enlargement of the scrotum, which reached the size of a large cocoa-nut. In the first instance it was looked on as suppurative inflammation of the testes. The patient had suffered severely, and was much reduced. The ordinary remedies—comprising leeching, rest in the horizontal posture, &c.—were resorted to. An abscess at length pointed in the median line, broke, and discharged a quantity of ichorous, sanious fluid; the swelling was thereby much reduced, and both testes could be felt in their normal condition. Two days afterwards urine began to flow from the orifice of the abscess, and has since continued. There exists considerable thickening of the parts anterior to the bulb. Merely a drop of urine flows through the meatus urinarius. Several efforts had been made to pass an instrument, but as yet without success.

March 20th, 1858.

The PRESIDENT in the Chair.

The PRESIDENT exhibited the fluid contents of the cyst which existed on the neck of the patient exhibited at the previous meeting of the Society. The fluid resembled bloody serum; and the presence of cholesterine was not evident, as in the fluid removed from the same cyst on a previous occasion.

On the use of Chlorate of Potash in Infantile Stomatitis.

A communication from Dr. BABINGTON (Londonderry), V.P., was read, on the value of chlorate of potash as a remedial agent. Dr. Babington observed, that the efficacy of chlorate of potash in cancrum oris was brought under the notice of the profession by Mr. Hunt, about ten years since, in the *London Medical Gazette* for October 12th, 1849. Dr. B. published a notice of its efficacy in about thirty cases of ulcerative stomatitis, which had occurred in the Coleraine Union Workhouse, in August of same year. In the *Medical Times and Gazette* for August 16th and 23rd, 1856, there is a valuable clinical report, from Mr. Hutchinson, of the Metropolitan Free Hospital, on the use of this medicine; and in the same Journal, for September 20th, 1856, Dr. Speer, of Cheltenham, gives some conclusions, arrived at by M. Isambert,

on the use of this salt. Its efficacy has been frequently noticed in mercurial salivation, and in the ulcerated throat frequently accompanying scarlatina, from Mr. Hunt's introduction of it up to the present time; nevertheless, Dr. Babington believes that its value has not been sufficiently appreciated. Dr. Babington is constantly in the habit of prescribing it in ulcerative affections of the mouth and throat. In stomatitis, as it occurs in children, he believes it to be a specific, as he has noticed, in every case, marked improvement after the exhibition of a few doses. It possesses an advantage for children, that, when sweetened with syrup, it has no offensive taste. The dose is from three to eight grains every four or six hours. A good way of administering it, in scarlatina, is, to dissolve a drachm in the patient's drink, to be used in twenty-four hours. Applied externally, it excites healthy granulations in sores of an unhealthy character; and when there are sloughs, and even a tendency to take on a phagedenic character, under the constant application of the solution, in the proportion of two drachms to a pint of water, Dr. Babington has seen the previously unhealthy surface rapidly change its character, and a healthy healing action established.

March 27th, 1858.

Dr. MURNEY, V.P., in the Chair.

Case of Dislocation of the Radius forwards.

Dr. GORDON detailed the case of a girl, *æt.* 11 years, who, four months before, had sustained a dislocation of the radius forwards, which had been overlooked by the medical men to whom she was taken. When the arm is fully extended, a distinct and prominent swelling may be seen and felt in front of the flexure of the elbow; and, from its form, and obedience to the motions of rotation of the radius, it is easily recognized to be the upper end of that bone; and on examining the arm, below the angle of the humerus, a distinct depression is felt. The displaced head of the radius is restored to its normal position by moderate pressure; but when the pressure is removed, it is immediately drawn forwards and upwards by the biceps, and may be felt and seen on the outer side of the tendon of that muscle. Firm pressure was made over the head of the radius, when in its normal position, and a thick pad and gutta-percha splint applied; but these measures were ineffectual to retain it in its position. Indeed, no bearable amount of pressure would be, in Dr. Gordon's opinion, sufficient to retain the head of the bone in its normal situation.

Contraction of the Palmar Fascia.

Dr. GORDON also presented a patient, *æt.* 14, affected with permanent flexure of the ungual phalanges of the middle and ring fingers. The de-

formity had commenced when the boy was five years old. Both phalanges were flexed at right-angles. The contraction was mainly due to chronic induration, and contraction of the fibro-cellular tissue of the sides of the fingers. This has occurred in the sides which are opposed to each other, and there is slight rotation of the bent phalanges on their axes, so that the nails look towards each other. There was, however, real shortening of the flexor tendons, but this Dr. Gordon regards as a secondary effect. Dr. Gordon observed; that subcutaneous section of the shortened tendons, and of the contracted fossa, would be necessary. In one finger these means had been adopted about four weeks ago, and permanent extension had been maintained since that time, with the effect of removing the deformity, except a slight lateral inclination, or rather rotation, of the phalanx.

Mr. JOHNSTON detailed the particulars of a case in which he had observed the spontaneous cure of favus in an adult, the disease having completely destroyed the hair, and so worn itself out.

Selections from British & Foreign Journals.

ACUTE AFFECTION OF THE MASTOID CELLS.

Appreciation of the Condition of these cells by the Pleximeter and by Auscultation.—Means of evacuating the contained fluid.—Abscess and Caries consecutive to the acute stage.—Puncture.—Injections with Tincture of Iodine.—Internal use of Phosphate of Lime and Iodide of Potassium.—Cure.

By M. PIORRY.

M. D., aged 26 years, of a robust constitution, was attacked, early in February, with very severe pain in the right mastoid region. A sero-purulent discharge had lately begun to flow from the external ear.

On the 10th of February there was a slight swelling, with redness and slight pain in the integuments covering the mastoid process. There was slight softening to be felt in this situation, and I thought that percussion, performed over both mastoid regions, might elicit some useful information. Such was the case. On the diseased side there was almost absolute dullness, with but slight elasticity; whilst on the left the sound was very clear, much louder, and there was the natural degree of elasticity. I then practised auscultation, the patient making several successive deep inspirations, and I heard very distinctly a large, moist rhonchus. This occurred eight or ten successive times. I then thought that it might be possible to evacuate the liquid contained in the

mastoid cells, by the patient making a forced expiration when the mouth and nose were completely closed; and I found that the rhonchus ceased altogether when this manœuvre was properly performed.

On the next day the phenomena were almost the same, but on the day following the rhonchus in the mastoid cells ceased, whilst the dullness became perfect, and the inelastic feeling on percussion more decided. I was then convinced that there was fluid lodging in the mastoid cells, and that, sooner or later, an abscess would be formed.

The discharge from the external ear diminished; it had come from the cavity of the tympanum, the membrane of which was perforated; for, on forced expiration, air escaped from the ear, with a hissing noise, very different, however, from the fine rhonchus which had been heard in the mastoid cells.

For eight days the patient remained in the same condition. In the mean time the discharge ceased; air no longer escaped from the external ear; and a more marked swelling, with redness and pain in the mastoid region, became more and more apparent; at the same time the inelastic dullness became more marked than before.

Eight days more went by, and the abscess had become more and more prominent, and fluctuation was distinct.

The following was the treatment adopted:—

For several days, and from the moment when it became evident that the walls of the mastoid cells were diseased, I administered the phosphate of lime, in doses of several grammes in the day, with the view of restoring to these softened parts the phosphate of lime of which they were in want. I ordered, likewise, half a drachm of the iodide of potassium three times in the day, and generous diet.

The swelling was punctured with a very fine trocar. I ran no risk in this, for percussion informed me that the bone was several centimetres below the distended cuticle. The puncture was made in the centre of the swelling; there escaped from the canula near a small teaspoonful of very thick reddish pus, which only exuded on considerable pressure. A smooth stylet, introduced into the cavity through the trocar, touched the bony walls of the mastoid cells. The pus being evacuated, I injected into the abscess compound tincture of iodine, diluted with a third part of water. The wound was closed with adhesive plaster, freshly spread on sarcenet, which gives to this plaster great flexibility, and renders it much more adhesive. That evening, the next day, and for eight days after, M. Baudoin, a very careful and well-informed pupil, dressed the wound, and used the iodine injection. On the third day after the operation the pus ceased to flow; the pain and swelling diminished; the resonance on percussion and the sensation to the touch were re-established, being the same as on the opposite side; and ten days

after the puncture, the phosphate of lime and iodide of potassium being continued, the cure was complete, and even the hearing was restored.

We find in this remarkable case—1st, a novel application of auscultation—viz., to the diagnosis of the condition of the mastoid cells; anticipated, however, in the *Traité de Médecine Pratique* (Allopathie Tome viii.); 2nd, important results from the use of the pleximeter in diseases of bones, and of fluid in their tissue; 3rd, the means of getting rid of the fluid contained in the mastoid cells—namely, by a forced expiration while the mouth and nose are closed; 4th, an example of the great utility of phosphate of lime and iodide of potassium in the different affections of bones; 5th, a case of abscess and caries of the mastoid cells, treated with marked success by the use of these medicines and by iodine injections.—*Gazette Médicale*.

SOME REMARKS ON SUGAR AS AN ARTICLE OF DIET IN DIABETES MELLITUS.

By H. BENCK JONES, M.D., F.R.S., Physician to St. George's Hospital.

In the *Comptes Rendus* for January 26, 1857, p. 133, and also in the *Gazette Hebdomadaire*, 1857, p. 115, there are some observations by M. Piorry, on a diabetic patient of his, in the Charité Hospital, to whom he gave 125 grammes, or about four ounces, of sugar-candy daily; at the same time he insisted on absolute abstinence from all drink, and from liquid food; and he gave a double portion of meat. From the short notice published, it appears that this treatment was continued twelve days, during which only 135 grammes (or about 4½ ounces) of sugar were passed daily; while before this treatment 700 grammes (about 22½ ounces) of sugar were lost, by passing off through the kidneys, in twenty-four hours. The urine fell in quantity from 10 litres (17½ pints) to 2½ litres (4½ pints, nearly). M. Piorry concludes that this experiment confirms his ideas as to the advantage of supplying the sugar that is lost in diabetes. It also shows, he says, that abstinence from drink is of extreme importance.

In the *British Medical Journal* for November 14, 1857, there is a report of a paper read by Dr. Budd, September 24, 1857; and March 13, 1858, a sequel is given, on a case of diabetes in which, for nearly ten months, sugar-candy, varying in amount from 16 to 6 ounces daily, with the addition, sometimes, of 4 ounces of treacle, or 6 ounces of honey, were taken. The patient was considered by Dr. Budd to improve greatly, in consequence of this plan of treatment. Throughout the case, no analysis was made of the amount of sugar. The specific gravity and quantity of the urine are occasionally given; and in the first two months the increase of weight is stated as being nearly 20 pounds.

Dr. Budd mentions a case of Dr. Brittan's, in which from 6 to 12 ounces of sugar were given, with honey, for twelve days, and the urine decreased in quantity and specific gravity.

In the *British Medical Journal*, Dr. G. Corfe records a case in which a very much smaller amount of sugar was given (1 ounce of sugar and 1 ounce of honey daily), as he considers, with advantage.

In the same Journal, for December 19, 1857, Dr. Williams, of Swansea, mentions that he gave sugar, bread, and malt liquor, according to Dr. Budd's proposition, with the most unsatisfactory result in two cases.

I have reason to think that, lately, other medical men have followed Dr. Budd's suggestion, and allowed their

diabetic patients the freest use of sugar, with or without bread. I have had patients consulting me, in consequence of the great increase of all the symptoms of the disease—the thirst, the craving, the quantity of urine, and the wasting. Such cases might well be set down in opposition to the case recorded by Dr. Budd. But in a chemical complaint, evidence may be obtained of the effect of any one article of diet, much more decisive than the general result; for the general result depends on a multitude of causes, some of which may act in opposite directions; so that good might be attributed to that cause which really only made the other causes less beneficial.

It is sufficient answer to Dr. Budd to say, that a bad general result was obtained in other cases of diabetes, but a more definite answer ought to be given in this disease than is possible in most diseases, and by the help of chemistry the action of the sugar ought to be exactly determined. If it be found that bread and sugar do increase the amount of saccharine matter in the urine, so as to leave no doubt on this point, then if improvement should occur when such substances are freely taken, the good must result from some other cause, which has not been well estimated. Bread and sugar are hardly, I suppose, considered by any one as the cause of diabetes; and though their effect may be accurately determined in this disease, yet the prime cause, whether it be the defect of chemical action, or the excess of nervous irritation, is still unknown; and variations in the action of this prime cause may produce much more remarkable effects on the urine, than variations in the amount of starch or sugar taken as food.

I should have left Dr. Budd's general results to be answered by Dr. Williams and by others, but as harm is being done, and some of the results have long since been obtained by me, I have thought it well to submit them to the medical profession.

E. C., aged 12, was admitted, 1854, into St. George's Hospital; she was said to have been ill six weeks, with pains in the bowels, wasting, thirst, excess of urine (specific gravity 1042), and ravenous appetite; drinking quarts of water, and eating as much bread as she could get.

After three days of animal diet only, she passed 3 pints of urine (specific gravity 1082), containing some sugar. In six weeks time the urine was reduced to 2½ pints (specific gravity 1012), and containing no sugar. She had not gained in weight above one pound.

A very little bread was then given; the next day the water was 3 pints (specific gravity 1015), and contained sugar. The bread was continued the next day, and then there was sugar. The following day no bread was taken, and there was no sugar. For three days bread was again taken, and sugar appeared; the following three days no bread was allowed, and the sugar disappeared. Again the bread was given, in small quantity, and the sugar re-appeared, and when omitted, disappeared. The bread was then finally omitted. Two pints of milk extra were given, and no sugar appeared the following day. The urine had a specific gravity of 1012, with no sugar. Potatoes were then given, and the next day the specific gravity was 1019, and much sugar was present. The potatoes were stopped, and a pint and a-half of porter was given, and no sugar appeared. This was continued for ten days, and still no sugar was present in the urine.

Two ounces of lump-sugar were then given. The urine had a specific gravity of 1012; no sugar appeared in the urine. This was continued four days, and, no sugar occurring, a small quantity of bread was also given; the specific gravity rose from 1009 to 1022, and much sugar appeared. The bread was omitted, and an ounce of honey was given daily for a week. No sugar appearing, two ounces of honey were given; and, no sugar appearing, some bread was given. The specific gravity rose from 1010 to 1030, and much sugar was present. The honey was continued without bread, and some sugar was found in the urine.

As it was desirable to determine more accurately the amount of sugar produced in the urine by the bread, I examined the water by means of Soleil's saccharometer; first, when some bread was taken; secondly, when no bread was taken; thirdly, when the third of a pound of lump-sugar was taken, and no bread; fourthly, when the sixth of a pound was taken; then when the sugar was omitted. After this, porter was given, and the effect on the urine determined. Lastly, a minimum quantity of bread was given. The following table gives the results of the experiments:—

Diet.	Sp. Gr. of urine.	Amount of Sugar in urine.
June 30, animal diet only	1014	none.
July 1, " "	—	none.
" 2, animal, with bread	1025	19 gra. to each oz.
" 3, animal only	1018	no trace.
" 4, " "	1007	" "
" 5, animal, and $\frac{1}{2}$ lb. sugar	1027	15 gra. to each oz.
" 6, " $\frac{1}{2}$ lb. sugar	1016	4 gra.
" 7, animal only	1020	no trace.
" 8, " "	1018	" "
" 9, animal, and pt. porter	1015	" "
" 10, " "	1018	" "
" 11, " $1\frac{1}{2}$ pt. porter	1020	" "
" 12, " "	1022	" "
" 13, " "	1015	" "
" 16, " with 4oz bread	1022	trace of sugar.
" 17, " 2oz. "	1025	trace.
" 18, " "	1016	trace.
" 19, animal only "	1015	no trace.

Unfortunately, the record of the quantity of urine passed daily has been mislaid; on this account I was anxious to repeat the experiments with sugar on another diabetic patient, and for this purpose Dr. Page transferred to me a patient who was under his care in St. George's Hospital.

A. T. was admitted into St. George's Hospital, Jan. 20, 1858, aged 43, married. She had been for two years under treatment at a dispensary. She was much emaciated, with pale, sallow face, and sunken eyes. The catamenia had been absent for fifteen months. She complained of excessive thirst and unappeasable appetite. She stated that her weight varied between 75 and 80 lbs., and that the urine had varied from 5 to 8 quarts in 24 hours. With a restricted, but not absolute, animal diet, and 3 grains of opium, the urine varied between $4\frac{1}{2}$ and $7\frac{1}{2}$ pints—specific gravity, 1030 to 1045.

On the 23rd of March she came under my care; the diet then was between 5 and 8 ounces of bread, 2 mutton chops, 2 eggs, 2 pints of milk daily, and 2 grains of opium, with some chalk-mixture for diarrhoea, which began the previous day. She weighed 5st. 6lbs.; the quantity of urine was 5 pints (specific gravity, 1034). She drank only 3 pints of fluid, she said, and the quantity of sugar passed in the urine was 31 grains to the ounce, or 3,100 grains in the 5 pints.

The 24th, the same diet and pill. There was no diarrhoea; she weighed 5st. 5lbs.; she passed 5 pints of urine (specific gravity, 1042); she drank 3 pints. The sugar was 35 grains to the ounce, or 3,500 grains in 5 pints.

The following day, feeling pretty well, same diet and medicine; weight, 5st. 6lbs.; urine, 5 pints—1042; 3 pints of fluid were taken in 24 hours. The amount of sugar was 36 grains to the ounce, or 3,600 grains in 24 hours.

The 26th, everything the same, except that 8 ounces of lump-sugar were taken. She weighed 5st. 6lbs.; the urine was $5\frac{1}{2}$ pints (specific gravity, 1042); she drank 4 pints. The sugar was 39 grains to the ounce, or 4,290 grains in 24 hours.

27th.—The same as yesterday; but diarrhoea commencing, chalk mixture was given. She weighed 5st. 4lbs.; the quantity of urine was 6 pints (specific gravity, 1042); she drank $3\frac{1}{2}$ pints of fluid, and had eaten her usual quantity of bread—about 7 ounces. The

amount of sugar was 40 grains to each ounce, or in 24 hours 4,800 grains.

28th.—Urgent diarrhoea—bowels acted seven or eight times; violent hysterical fit. Æther mixture and opium injection were given. Her weight was 5st. 4lbs.; the quantity of urine 5 pints (specific gravity, 1042), containing 38 grains of sugar to each ounce, or 3,800 grains in the 24 hours. She drank only 3 pints. The sugar was omitted.

29th.—The diarrhoea was stopped; the weight was 5st. $5\frac{1}{2}$ lbs.; urine, $5\frac{1}{2}$ pints (1042 specific gravity), containing 38 grains to the ounce, or 4,130 grains in 24 hours.

30th.—No diarrhoea; no sugar; weight, 5st. 6lbs.; urine, 5 pints (specific gravity, 1042); contained 36 grains to the ounce, or in 24 hours 3,600 grains.

31st.—Still no sugar; weight, 5st. 6 $\frac{1}{2}$ lbs.; urine, 5 pints (specific gravity, 1043); contained 36 grains to the ounce, or 3,600 grains in 24 hours.

April 1.—Bowels confined; 8 ounces of sugar were taken; the weight was 5st. $5\frac{1}{2}$ lbs.; the quantity of urine was 7 pints (specific gravity, 1040), containing 37 grains per ounce, or 5,180 grains in the 24 hours.

2nd.—Feels very low and weak; no sugar was taken; the weight was 5st. 5lbs.; urine, 5 pints (specific gravity, 1041); amount of sugar, 36 grains to the ounce, or 3,600 grains in 24 hours.

3rd.—Five pints—1040; sugar, 35 grains, or 3,500 grains in 24 hours. She complained of the sugar, and the experiments were discontinued. The following table brings the effect of the sugar clearly to view:—

	Weight.	Quantity	Sugar	Sp. Gr.	Sugar	Fluids	Urine	Sugar
	st. lbs.	of water.	in 24		grains.	hours.	drank.	passed.
		pinta.	hours.			pt. oz.	pt. oz.	grains.
1st day ...	5	5	5	1034	3100	3	—	none
2nd, ..	5	5	5	1042	3500	3	—	"
3rd, ..	5	5	5	1042	3600	3	—	"
4th, ..	5	6	$5\frac{1}{2}$	1042	4290	4	—	8oz.
5th, ..	5	4	6	1042	4800	$3\frac{1}{2}$	7	8,,
6th, { violent	5	4	5	1042	3800	3	$7\frac{1}{2}$	8,,
7th, { diarrhoea	5	$5\frac{1}{2}$	$5\frac{1}{2}$	1042	4130	3	5	8,,
8th, ..	5	5	5	1042	3600	3	7	8,,
9th, ..	5	$6\frac{1}{2}$	5	1043	3600	3	7	8,,
10th, ..	5	$5\frac{1}{2}$	7	1040	5180	8	7	8,,
11th, ..	5	5	5	1041	3600	3	$8\frac{1}{2}$	none
12th, ..	5	5	5	1040	3500	3	7	"

So that the amount of sugar in the urine, and the quantity of urine, were increased on the days when sugar was eaten, excepting only on that day when violent diarrhoea existed.

In order to determine in which stage of diabetes this patient was, she was persuaded to give up all vegetable food of every kind, and all bread. Three eggs were taken in addition to the diet of meat and eggs which she was eating.

At the end of the

1st day of absolute animal diet she weighed 5st. 5lbs.; the urine was 4 pints (specific gravity, 1042); it contained 31 grains of sugar to each ounce. She drank 3 pints.

2nd day of absolute animal diet she weighed 5st. 4lbs.; the urine was 4 pints (specific gravity, 1041); it contained 29 grains of sugar to each ounce.

3rd day animal diet—weight, 5st. 4lbs.; the urine was 4 pints (specific gravity, 1040); the sugar was 27 grains to the ounce.

The following day 10 ounces of bread were eaten, and the 3 eggs were omitted; the weight was 5st. $4\frac{1}{2}$ lbs.; $4\frac{1}{2}$ pints of urine were passed (specific gravity, 1040); the sugar was 34 grains to each ounce.

The following day, with the same bread—urine, 4 pints (specific gravity, 1041); sugar, 35 grains.

The following table will show the effect of an absolute animal diet, and of bread and meat:—

	Weight.	Quantity		Sugar in	Fluid	
	st. lbs.	of water.	Sp. Gr.	24 hours.	taken.	Bread.
		pints.		grains.	pints.	
1st day ...	5 5	4	1042	2480	3	none
2nd „ ...	5 4	4	1041	2240	3	„
3rd „ ...	5 4	4	1040	2160	3	„
4th „ ...	5 4½	4½	1040	3060	3	10oz.
5th „ ...	5 4½	4	1041	2800	3	10oz.

Each day was reckoned from 1, p.m., when the patient was seen; so that bread was taken on the morning of the first day; and by the results obtained on the fourth and fifth days, when bread was eaten, it is probable that the amount of sugar found in the urine of the first day was increased in consequence of the early meal not being meat alone. The wrong conclusions that might be drawn from the specific gravity of the urine alone is well shown in these tables, thus:—

	Sp. Gr.	Sugar in
		24 hours.
		grains.
When animal diet alone was taken ...	1040	2160
With animal diet, and bread, 10oz. ...	1040	3060
With animal diet, bread 7oz., sugar 8oz. ...	1040	5180

I have already said that it would be sufficient answer to Dr. Budd's cases, that I have seen other patients, on the same treatment as regards diet, get worse, instead of better. The analyses of the urine, in the two cases I have here given—the one in the second stage, and the other in the third stage, of diabetes—will show what a diet containing sugar and bread does effect in increasing the amount of sugar in the urine; and from all I have seen of the disease, it is better practice to follow the indication of lessening the amount of sugar in the urine, than to endeavour to cure the disease, as I have known a Homœopath try to do, by a specific of sugar and starch.—*Medical Times and Gazette.*

THE JENNER MONUMENT.

On Monday last, the birth-day of the great Jenner, a numerous and highly-influential meeting was held at the College of Physicians, to inaugurate his statue, to do honour to his memory, and to further the cause of vaccination. Prince Albert presided, and, on taking the chair, made a short address on the objects of the meeting. He eulogised Jenner as one of the greatest benefactors of his species, and characterised his discovery of vaccination, not as one of the happy chances of genius, but as the result of profound observation, of deep study, and of true inductive philosophy. He spoke of the beneficial influence which vaccination had exerted on all nations, and congratulated the meeting on the occasion of their assembling to inaugurate a statue to the memory of its great discoverer.

Dr. Conolly read an eloquent eulogium upon Jenner. He traced his career, and portrayed in a striking manner his simple early life, the difficulties with which he struggled with reference to his first attempts to promulgate his great discovery, the indomitable perseverance with which he pursued his labours, and the crowning success which followed.

A series of resolutions was passed, including votes of thanks to the Sculptor, Calder Marshall, R.A.; the Committee for the erection of the Jenner statue; the Honorary Secretary, and the Chairman of the day. These various resolutions were carried amidst much enthusiasm, as was also a resolution respecting the benefits and efficacy of vaccination.

Dr. Seaton read an able and striking report on the present state of vaccination throughout the world.

Mr. Pettigrew spoke in glowing terms of the faithful likeness which the sculptor had succeeded in making of the great original—a success the more commendable and remarkable from the circumstance of his having received no assistance, except from portraits.

The meeting was also addressed by the venerable Marquis of Lansdowne, whose speech was received with great cheering. He had had the honour, nearly half a

century ago, of proposing, in the House of Commons, a money grant to Jenner—a grant which was cheerfully awarded.

The proceedings, altogether, were of the most cheering and satisfactory character. The Chairman was supported by the Bishops of Oxford and Bath and Wells, Lords Ducie, Littleton, and Ashburton; the Lord Mayor, Dean Milman, and other persons of influence and station. The meeting was held in the library of the College, and about three hundred members of the profession were present. Special reference was made, in the course of the proceedings, to the assistance which had been rendered to the fund by America, and by most of the nations of Europe; France having given her aid, although a statue of Jenner is about to be erected in her own capital.

Mr. Marshall's statue is placed at the south-west corner of Trafalgar-square, immediately on the right of that recently erected to Sir Charles Napier. Jenner is represented seated in a chair, in an easy attitude. The fine open, intelligent, and benevolent face of the original is admirably portrayed. It is to be trusted that this monument, the first erected in the metropolis to Jenner, may have the effect, not only of rendering his face and name more familiar to the great body of the people, but, as was expressed by more than one speaker at the meeting, serve to impress upon the public mind the inestimable value of vaccination.—*Lancet.*

CITY AND COUNTY OF CORK MEDICAL AND SURGICAL ASSOCIATION.—At a meeting of the City and County of Cork Medical and Surgical Association, held May 28th, the following Officers and Council were elected for the ensuing session:—

President—PROFESSOR O'CONNOR.

Vice-President—DR. GREGG.

Secretary—DR. S. HENRY HOBART.

Treasurer—DR. ARMSTRONG.

Council—Ex-officio (all ex-Presidents)—DR. M'EVERS, DR. W. C. TOWNSEND, DR. CUMMINS, DR. HARVEY, DR. FINN, DR. R. CORBETT.

DEATHS.

M. MARESKA, one of the most scientific scholars of the day, and for the last twenty-eight years Professor of Chemistry in the University of Ghent, recently died in that town. He was one of the principal and most active workers at the new Belgian Pharmacopœia. His works on organic and inorganic chemistry have been translated into German, and are extensively studied on the continent.

Professor MAUTHNER, Director of the St. Anne's Children's Hospital, Vienna, and a principal contributor to the *Journal für Kinderkrankheiten*, has just died of meningitis, in the prime of life.

JOHANNES MÜLLER, M.D., Professor of Physiology and Anatomy, on April 28th, at Berlin. He was in his usual good health even two hours before his death, which occurred suddenly whilst asleep. He was to have commenced his summer course of lectures on Monday, May 3rd.

Professor PLATTNER, the celebrated writer on the blow-pipe, died at Freiberg early in the present year.

VON EISENBECK NEES—This venerable Professor at the University of Breslau, died a short time ago. His name is well known to all students of Materia Medica, and the botanical reputation of NEES is certainly European.

COMMUNICATIONS

Received from Mr. Andrews (Durham), with enclosure; Mr. Searte (Devonport), with enclosure; Dr. Cumming; Dr. Dillon Kelly; Dr. Hobart; Dr. Bourke; Fr. Carlale.

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CASE OF ANEURISM OF THE AORTA, OPENING INTO THE RIGHT PLEURA:

USE OF GLONOINE.

By ROBERT D. LYONS, M.B., M.R.I.A.,
Physician to Jervis-street Hospital, &c., &c.

A man about 36 years of age was admitted into Jervis-street Hospital early in last October. He gave a somewhat obscure history of his case. He was a sailor; and I have an impression that on one occasion, on my cross-examining him as to his symptoms and history, he told me that he had received a blow or a fall on board ship—an interesting point in connexion with the early formation of aneurism; but the clinical clerk says he has no remembrance of any such statement having been made. About six weeks before his admission into Jervis-street Hospital, he was under treatment in another hospital in this city, for an attack of painter's colic, which he appears to have got during the painting of the ship to which he belonged. She was under a course of painting for a month, and he, as sailors do under the circumstances, took part in the painting of the vessel. He got an attack of lead colic, was admitted into hospital, and was judiciously and successfully treated for that disease. Some suspicion appears to have been entertained by the accomplished physician under whose charge he was, that there was some abnormal condition of the cavity of the chest, for the man was submitted to a very careful examination at the period of his discharge from the hospital in question. He had then some slight pain in the right mammary region. He sought admission into Jervis-street Hospital chiefly by reason of this pain, which from this date—namely, the 5th or 6th of October—became a permanent and continued phenomenon of the case. It never altered, except to increase in intensity; until his sufferings at last became very severe, indeed. During the first period of his admission into hospital, for some few days, there were no manifest signs presented which might enable us to arrive at a diagnosis.

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The persistent character of the pain, of course, at once awakened attention. Stethoscopic examinations were made by my colleague, Dr. Hughes, and also by my predecessor, Dr. Wm. Martin. In the course of the month of October, about eight or ten days after his admission into hospital, a diagnosis was made. A tumor was not presented; and the chief and most important phenomena observable were those of intense, unaccountable pain in the right mammary region. The diagnosis, under those circumstances, was exceedingly creditable to the gentleman who made it.

From this period symptoms and signs began to accumulate, which left no doubt as to the nature of the case. I was informed by Mr. Moffett, the clinical clerk in the hospital, that on the 10th of October a loud bruit became developed, not having been before observable; and now a slight amount of tumor became perceptible in the right mammary region. The pain continued, and went on increasing.

The progress of the case now presents little of interest, until a period of some couple of months subsequently, when the swelling came forwards to a considerable extent, and became manifest as a pulsating tumor. I can now speak of a time when I saw the patient myself repeatedly. The tumor became prominent above the surface of the chest, and its condition on the 14th of March is well shown in the cast taken by Mr. Macartney, one of our pupils. From this date the tumor gradually increased in size, thrusting itself forward chiefly towards the right side. It was now accompanied by all the characteristic signs of aneurism of the thoracic aorta, and the diagnosis was beyond question. There were two manifest impulses, perfectly distinct from each other, and two distinct sounds. There were also two manifest centres of pulsation in the cavity of the chest—one referable to the heart, and the other referable to the aneurismal tumor; and the intervals, as constantly observed between the heart's movement and the movements of the tumor, were perfectly distinct. And we now came also to have a distinction between the characters of the sounds as presented in the

heart and those presented by the tumor. For a considerable period there was no abnormal sound audible in the heart, but two sounds were audible in the tumor; one of these was that full dull sound corresponding to the action of the tumor, with which it impinges first on the hand; it is that which is well defined and described by Gendrin under the name of *bruit de choc*, and which seems to be, so to speak, the normal first sound of aneurismal tumors. The second sound, which accompanied the second impulse, was now of the character of a long, soft, and not very loud murmur. I can distinctly state, from my own remembrance, that for a considerable period of the case there was no murmur in the cardiac region. A murmur became subsequently developed in the cardiac region—a murmur of the to-and-fro, or sawing character, corresponding to the egress and regress of the blood. I omitted to mention, that at an early period of the case there was observed considerable amount of feebleness of respiration in the right lung, one of the points which materially aided in the diagnosis.

For the last two or three months the patient began to suffer considerable pain in the cardiac region, and he had now, as it were, not only two centres of pulsation, but two centres of suffering. There was pain manifestly referable to the surface of the heart, and there was pain in the tumor, the latter pain being persistent, and increasing in intensity as the case progressed. The pain in the præcordial region is interesting, in connexion with certain conditions found when we examined the specimen *post mortem*. It was a very severe pain, of which he complained much, and from which he suffered much. It will be remembered that there was at this period a double to-and-fro sawing sound audible over the heart; it was manifestly a sound referable to the line of the aorta, and not to the pericardium. Though I repeatedly examined the case at this period, there were certainly no physical signs of affection of the pericardium.

The tumor steadily increased in size, and began to spread upon the surface of the chest; it gradually undermined the pectoral muscle, and eventually made its way over to the right shoulder. There was no hæmorrhage to any extent, until a comparatively recent period. Within a few days of death the patient began to spit blood, but not in any marked or considerable amount. He lived on, the tumor enlarging, and spreading on the surface of the chest; and death from the rupture of the tumor externally, was daily expected. The case terminated on the 19th of March, by a rupture, but not in the direction that we had expected. It did not rupture externally, and there was only a small quantity of blood thrown off with the expectoration just before death. A small quantity had been coughed up within two or three days, but nothing to any considerable extent.

In making the *post-mortem* examination, as may be readily imagined, we had great difficulty

in removing the parts from the chest. We found, what I had not expected, that the pericardium was adherent throughout; and this very much complicated the *post-mortem* examination of the case. We had first to dissect away the pericardium carefully from the whole surface of the heart; we then opened the left ventricle and the aorta; and we discovered a small circular aperture—such, perhaps, as would be covered by a sixpence—at a distance of about an inch and a half above the line of the aortic valves. The aortic valves are in all respects perfectly healthy. On looking attentively at the aortic orifice, I consider that an amount of mechanical dilatation had taken place sufficient to allow of the blood passing back from the aorta to the ventricle; but the aortic valves themselves are perfectly healthy. On following the indication given us by this aperture, we found a very large sac lying behind the sternum and the third, fourth, and fifth ribs. It has here made its way through the intercostal muscles; but it is remarkable, that while it has eaten away a portion of the sternum, it has not interfered in any way with the cartilages or the osseous structure of the ribs. It seems to have made its way forward by a gradual process, in the interval between the ribs, eating away the intercostal muscles, but not interfering with the cartilages or the ribs. The sac communicates, as I mentioned, with the aorta, by an exceedingly small, circular, and perfectly well-defined aperture, with smooth edges—smooth on the external as well as on the internal aspect. This large sac had displaced a considerable portion of the right lung, and we now found that it had formed an intimate adhesion to the pleura, the external surface of it facing the lower lobe of the right lung. A tumor was formed outside the vessel, but I cannot find that there was any portion of the wall of the vessel prolonged upon it. In fact, it seems to have gradually formed the sac for itself, in the parts outside the vessel.

I mentioned that hæmorrhage took place: it did so, not upon the mucous, but upon the serous surface. By an eroded aperture, of the size of, perhaps, a shilling, it opened into a limited and circumscribed portion of the right pleural cavity. This circumscribed space was formed by the superior lobe having become attached to the walls of the chest all round; and it was into that portion of the pleural cavity between the inferior and middle lobes and the tumor that the large hæmorrhage took place, which was the cause of death. I examined the bronchial ramifications with great care, in both lungs, and there was no point which the tumor had eroded, nor was there any means of direct communication between the tumor and the pulmonary substance.

I have given but a very imperfect outline of this important case, but I trust it will be communicated to the profession in a much more full and satisfactory manner at a future time, by my col-

league, Dr. Hughes, who is much better acquainted than I am with its history and details.

I may mention, that with the view of relieving the intense pain which this patient suffered, I employed, for a short time, the new anæsthetic agent, known by the name of Glonoina. It is a medicine possessing properties of extraordinary intensity. It is prepared by the action of nitric and sulphuric acids upon glycerine. I employed a diluted solution, of which the dose is from a quarter of a drop to half a drop; and the maximum dose is one drop. I used it in this case on two or three occasions. The quarter-drop dose had the effect of producing slight stupor, and a slight amount of heaviness, and partial numbing of the sensation of pain. I gave him a larger dose the next day, when he told me that he experienced considerable relief; that he knew the pain was present, but that he was not sensible of it as pain.

CASE OF MOST ACUTE CONJUNCTIVITIS,

FROM THE CONTENTS OF AN ASCARIS LUMBRICOIDES ESCAPING INTO THE EYE.

By DILLON KELLY, M.R.C.S.L.,

Medical Officer of Milltown-Pass Dispensary.

Andrew Maguire, æt. 50, stout and florid-looking, was brought to me, May 6th, at seven, p.m., labouring under conjunctivitis of left eye, of a very severe character. The eyelids were tense, swollen, and inelastic. It was with much difficulty I could succeed in separating them, so as to allow any examination of the eye. The right eye, also, was slightly affected, the lids reddish and swollen; and there was intense lachrymation of both. He said that these symptoms were present only about twenty minutes. Considering then that he must have been stung by some insect, or that some exceedingly acrid matter had by some means got admission into his eye, I asked if such were the case, when he gave me the following extraordinary account of the accident that produced it:—

About twenty minutes before I saw him, his wife showed him an immense ascaris lumbricoides, fully fifteen inches long, and large in proportion, passed by one of his children, after a dose of kameela, administered a short time before. In endeavouring to rip it open with a large needle, some of its fluid contents spirted into his eye: immediately the eye became so excessively itchy, that he could not resist the desire to rub it vehemently. To the itching succeeded a sudden lancinating pain, as if a sharp point beneath the lids were darting into the eye-ball. This great pain, and the fact that his vision was becoming every moment more dim, alarmed him greatly, and he asked to be brought to me.

Separating the lids—which I did with much difficulty, from their extremely tense and swollen condition, the upper being excessively exagge-

rated—I at length succeeded in getting a view of the conjunctiva, which was in a state of intense chemosis, surrounding, and almost entirely closing up, the cornea, over which it lapped in a cushion-like round or fold, of firm consistence and dirty greenish yellow colour, and fully four lines in depth. The cornea, or so much of it as could be seen, was quite clear, yet he could distinguish no object through it, partly owing, no doubt, to the combined effects of lachrymation, the great tendency of the globe to roll upwards, and to the intolerance of light, although the morning was dark, and no sun visible.

He complained that the lancinating pain in the eye-ball was becoming more intense, and also that his right eye was getting troublesome, which he imagined was caused by his having inadvertently applied to it some of the fluid contents of the parasite, which had adhered to his hand. Pulse 90, and full; no headache, but an uneasy feel in his brow—not, however, amounting to pain.

I at once bled him from a large orifice; and directly he became weak, the colour of the conjunctival chemosis altered, its dirty greenish-yellow appearance being succeeded by that of semi-transparent, yet muddy-looking œdema, which was so pronounced immediately over the whole outer margin of the cornea, that it appeared like a membrana nictitans cropping out from beneath the zone of chemosis, and appearing to consist evidently, from its greater transparency and tenuity, of that portion of corneal sub-conjunctival cellular tissue over which the inflammatory action had, in so short a space, extended itself.

The soreness and prominence of the eye-lids now so much decreased, that he could open them to the extent of a line or two, they being as firmly united before as in infantile photophobia; and he could also now discern objects, which was before perfectly impossible.

I then placed five grains of calomel and two of tartar-emetic on his tongue, and gave him two similar doses—the second to be taken at bed-time and the third in the morning—cautioning him to drink but little after each dose.

The powders sickened him very much, but did not act on his bowels; and the next day he was much improved; the conjunctival swelling was considerably decreased but still gelatinous-looking, with a perceptible pinkish tinge, and delicately pencilled over with distinct hair-like vessels, carrying florid blood. Lids still œdematous, but collapsed-looking. He still complains of a feeling of intense itching and tenseness in them. Crassamentum of blood rather florid, convex, but not firm; serum whitish-yellow, turbid, and evidently loaded with fibrine.

He was well purged with compound powder of jalap, and in the evening the feeling of tenseness and itching of eyelids had all but gone; they were also less swollen, and the chemosed conjunctiva was steadily on the decrease, but more vascular

and fleshy-looking. There was still profuse lachrymation, and also slight intolerance of light.

Saturday, 8th.—Greatly improved; swelling of conjunctiva nearly gone, but it still presented a muddy appearance and great vascularity. Pulse quicker and smaller than on yesterday; slight uneasiness in brow and head, but not amounting to pain; tongue clean; appetite good.

From this time he slowly but steadily improved, but a very considerable time elapsed before he was able to resume his work.

This case appears to me of great interest, as showing the exceedingly poisonous nature of the contents of this entozoon, and the rapidity with which it acted, not only locally, but also on the blood, as was unmistakably evidenced by the milky and fibrinous appearance of the serum of that fluid.

It also involves a question of deep importance in the treatment of such cases in children, as to whether, should intestinal worms burst internally, the possible absorption of some of their poisonous excretions, or their action on the mucous membrane, may not account, in a great measure, for those anomalous and distressing symptoms which are almost invariably developed when they are known to exist in the bowels.

But I give the case, not on that account, but merely for the purpose of having the point determined, whether the peculiar excretions of those parasites are poisonous, or not—a point not very difficult of accomplishment, as it is invariably the established order here, when worms have been parted with, to at once bring them to the nearest doctor, for his opinion and inspection.

was no hectic, no auscultatory phenomena of the voice; nor was there any symptom leading to a suspicion of phthisis. The disease was accordingly pronounced to be emphysema, and treated upon that view, with great and rapid benefit; but the improvement was quickly followed by greatly-increased debility, violent dyspnoea, and death. On examination, two large cavities were found in one lung, and one cavity in the other, all of which were lined by distinct false membranes. There was little congestion, universal emphysema, and there existed intimate adhesions of the pleura. The chief points of interest were, in Dr. Ferguson's opinion, the unfrequency of the occurrence of extensive emphysema with tubercular disease in the same lung, and the difficulty of diagnosing the tubercular cavities caused by the presence of the emphysema and the accompanying catarrh. Dr. Ferguson suggested, that possibly the explanation of the latter might be, that the expansion of the lung produced an amount of pressure which obliterated the cavities during life, and that the altered state of the pulmonary tissue interfered with the conduction of the sounds, and consequently prevented the production of the physical signs. The administration of extract of larch-bark had been followed by marked diminution in the catarrhal discharge, and relief to the dyspnoea. Dr. Ferguson observed, that this remedy (which had been brought under his notice by Dr. Frizell, of Dublin) was, however, of questionable utility in cases of this nature.

April 10th, 1858.

Dr. MURNET, V.P., in the Chair.

Dr. GORDON presented the bladder and kidneys of a man, æt. 65, who died in consequence of retention of urine. The bladder was hypertrophied, its muscular fibres forming thickened bands (some of which were more than a line in thickness), standing out in bold relief in the interior of the organ. The mucous membrane was reddened; the ureters and pelves of the kidneys were considerably dilated; the kidneys themselves were a good deal enlarged; and the cortical substance was studded over with small abscesses, some of which had burst, and diffused themselves beneath the capsule, which was considerably thickened. None of these abscesses had made their way into the pelvis of the kidney. On making sections of these organs, some of the abscesses were found to occupy the centre of the cortex, but most of them were on the outer surfaces. The patient, when he presented himself for admission into hospital, three weeks before death, was very much emaciated, tottering in his gait, and had the mental faculties slightly impaired. There was œdema of the lower extremities, extending to the knee, and his person exhaled a strong urinous odour. On admission, about a quart of urine was drawn off by the cathe-

Proceedings of Societies.

BELFAST CLINICAL AND PATHOLOGICAL SOCIETY.

Session 1857-58.

April 3rd, 1858.

Dr. M'GEE, V.P., in the Chair.

Dr. FERGUSON, V.P., detailed a case of

Phthisis Pulmonalis, combined with and masked by Emphysema,

and presented the affected lungs. The patient, a woman advanced in life, had been admitted into hospital, under Dr. Ferguson's care, presenting strongly-marked signs of emphysema, accompanied by a profuse catarrhal discharge from the lungs. The chest had undergone an extreme amount of the modification in shape usual in this disease; there was tympanitic sonorousness over the greater part of it, and universal mucous râles, mingled with craquements, were audible. There

ter, and a few hours afterwards a second quart; and on the following morning a similar quantity. The catheter was introduced twice daily, but this was not sufficient to prevent the stillicidium; it was therefore used three times. He did not gain strength, but became daily more and more enfeebled, and at length sank.

April 17th, 1858.

The PRESIDENT introduced a boy, æt. 15, who, on several occasions recently, had been attacked with sudden œdema of the hands and feet, without any ostensible reason. The œdema was accompanied with great lividity, and there was intense pain when either of the affected extremities was touched. This condition of the parts lasted but for a very short time, and passed away, leaving no trace of morbid action. There was no irregularity of the heart, nor any appreciable sign of disease in any organ.

Dr. THOMAS READE had seen a gentleman in whom the contact of cold water produced great œdema of the hands, and in whom the use of the bath had been followed by delirium. The disease had yielded to the administration of tonics, and the use of remedies calculated to improve the health generally.

The President also introduced a patient who had received a *Comminuted Fracture of the Arm*, a little above the elbow-joint, which had not united. The patient, who had been under the care of Dr. Jamieson, of Newtownards, stated that numerous portions of the bone had come away. The fragments were readily moveable on each other, and a fistulous opening existed. There was considerable loss of substance of the bone.

April 24th, 1858.

The PRESIDENT in the Chair.

Dr. MURNEY, V.P., exhibited a finger which had been removed by Dr. M'Laughlin, of Lurgan, from a man, æt. 55. A tumor had formed upon it, twelve years before, in consequence of an injury received by the patient. This tumor gradually increased, and had recently attained the size of a small orange, but was perfectly painless, and did not interfere with his employment as a weaver. About a fortnight previous to the operation he had injured the tumor by a fall, and ulceration had set in. A large fungus had formed, which bled profusely every day, reducing the patient to a state of great anæmia. Under these circumstances the finger was removed by Dr. M'Laughlin. Dr. Murney stated that he had no doubt that the growth was of a malignant nature, as he had ascertained the presence of numerous cancer cells, by the aid of the microscope.

Mr. BROWNE, V.P., introduced a woman, the subject of *Diffused Carcinomatous Growth*, affect-

ing the head, neck, breasts, &c. These growths had commenced two years previously, but only two months ago had begun to increase rapidly.

Dr. HALLIDAY introduced a boy in whom the gum of the lower jaw had become adherent to the cheek, in consequence of ulceration which had arisen during an attack of small-pox.

The PRESIDENT exhibited a tumor, the size of a large bean, which he had dissected out from the forearm of a nurse, æt. 28. The median nerve was imbedded in the tumor, and pressure caused severe pain, extending to the fingers.

Dr. CUMING detailed some experiments on fowls, which he had made by the direction of the Society, for the purpose of ascertaining if the South American arrows in the museum of the Society possessed active poisonous properties. He stated, that the poison was still, after the lapse of several years, quite efficient; and that its effect—namely, the production of muscular paralysis—agreed with the accounts of the properties of the woorai, as described by Humboldt and Schomburgk.

MEDICAL BENEVOLENT FUND SOCIETY.

The annual meeting of the members of this Society was held on Monday, June 7th, at Sir Patrick Dunn's Hospital.

Sir HENRY MARSH, Bart., President of the Society, in the chair.

The Chairman said the objects of the society were calculated to awaken the deepest interest in every branch of the profession. He did not intend to make more lengthened observations, but all he would say at present was, that it was a most agreeable thing to see all branches of the profession united in carrying one common object—that object being one of benevolence and kindness (hear, hear). All differences amongst the members of the profession were sunk in the common desire to render the society as universally beneficial as possible (hear, hear). All should admit how agreeable was the feeling that one had contributed even temporary relief towards the comforts and assistance of a brother physician or surgeon in distress, or in alleviating the wants of the family which he might have left behind him (hear, hear). It was impossible to make these remarks without adding that the whole profession owed a deep debt of gratitude to the original founder of the society, whom he was happy to see present at the meeting.

Dr. James Wharton, Secretary, then read the report, and the following letter from Mr. Brady, containing a donation of ten pounds:—

"54, Upper Leeson-street, 5th June, 1858.

"MY DEAR WHARTON.—Considering the unwearied benevolence manifested by the medical profession, not only towards the poor, but to that large class of persons of limited means who can rarely provide against sickness, it must be admitted that there is not any society more deserving of sympathy and assistance from the public than the Medical Benevolent Fund Society. Indeed, it appears but an act of justice to aid members of your profession, when struggling under the pressure of disease—too often caught in the discharge of self-imposed duties amongst the poor—where the greatest contagion exists. There is a feature in the report for the year 1857 deserving commendation and calculated to encourage subscribers, who but reasonably desire to see that their charity reaches its object. The entire charge for management, including the branches, does

not amount to forty-two pounds—a very small sum compared with the extravagant expenses of some other societies.—Faithfully yours,

“CHRYSE BRADY.

“Doctor Wharton, Secretary.”

Dr. Mackesy proposed the adoption of the report and statement of accounts. The circulation of the report which had been read would, he said, do more than anything else to convince the medical man who refused to give his aid, however slight, to the society, that he was not discharging his duty towards his brethren in the profession.

Dr. Hamerton seconded the resolution, which was unanimously adopted.

Dr. Brunker proposed the next resolution—“That the funds for distribution amongst the claimants for relief is wholly disproportioned to their necessities, and that the meeting pledges itself to spare no exertion to render the society worthy of its objects.” He expressed his deep sorrow that the society had not progressed more than it had; but still he hoped that by firm exertions many members of the profession who were not supporters of the society, but who were in a position to do so, might be induced to give their aid (hear, hear). The answer which he had frequently received, he said, when advocating the claims of the society, was, that every medical man should insure his life.

Dr. M'Clinckock, in seconding the resolution, said it was but true that the support which the society received from the medical profession was not as great as it should be. In reference to the second part of the resolution it was manifestly the duty of those who had not yet joined the society to come forward and do so now in the eleventh hour. As to the propriety of soliciting aid from non-professionals, he thought there was no profession that had a larger claim on the public for sympathy and support than the medical profession (hear).

The resolution was put from the chair and adopted.

Mr. Benson proposed the next resolution “That the Branch Societies and the Secretary are entitled to the warmest thanks of the meeting, which are presented, for their persevering and, in some instances, successful determination to increase the funds of the society during the past year.” Having been himself a hard-working member of the society (hear), he could speak to the amount of labour performed, and the good effected by the branch associations (hear, hear). At the period of the first meeting of the society, over which Sir Henry Marsh presided, no branch society existed; since then eighteen branches had sprung into existence (hear, hear). As to the question of soliciting subscriptions in aid of the society from non-professionals, he was of opinion that open solicitation should not be made, but that of course they should gratefully receive subscriptions when offered. The great body of the subscribers to the Medical Benevolent College in England were, no doubt, non-professionals; but he could not help thinking that the profession in Ireland maintained a higher rank than in England, and he would be desirous of upholding that position (hear).

Dr. Geoghegan briefly seconded the resolution, which was also adopted.

Dr. Martin proposed the next resolution, to the effect, “That in order to give time to the Central Committee to make the necessary preparation for the annual meeting, no applications for relief, unless in cases of urgency, (which should be attended to at any time) should be forwarded to Dublin after the 1st day in May of each year.” In reference to the question of personal solicitation of subscriptions from non-professionals, although he entertained a high opinion of the position of the medical profession in Ireland, he thought when many of their medical brethren were in distress, it would not do to be too nice in their feelings (hear, hear). He had written to every gentleman of influence, asking support for the society, but he received no answer until he waited on them personally. Lord Waterford, for instance, who had given him a subscription, evidently had

erroneous ideas of the income of some members of the profession, for he expressed the greatest surprise at learning that there are medical men practising in parts of the country for £150 per annum. No doubt personal application for subscriptions might be made in such a manner as to cast shame on the profession, but if it was done judiciously, it would have a most beneficial result (hear, hear).

Dr. Caulfield seconded the resolution. He said he thought that the number of copies of the report agreed to be printed was insufficient. He also urged on the meeting the necessity of personal application, after forwarding copies of the report to the persons to whom they intended to apply, in order that those persons could see exactly what description of body their society was, and he related an instance in which he had succeeded in obtaining a donation from a gentleman, in consequence of applying to him personally.

The resolution was then put, and carried unanimously.

Dr. Montgomery moved—“That the munificent donation of £50, in addition to his former donation of £361, by Dr. Kinsley, and of £50, in addition to his former one of £110, by Dr. Henry Purdon, and of £100, by Dr. Wilkinson, to the funds of this Society during the past year, call for the warmest thanks of this meeting, and that those gentlemen be requested to kindly accept our acknowledgments hereby presented to them for labouring in the cause of this most useful body.” He said he hoped he would not be considered as guilty of a paradox if he said he confessed that when that resolution was put into his hands he received it with mingled feelings of regret and pleasure—regret, on account of its difficulty, and pleasure, because it gave him an opportunity of expressing the feeling, which he was sure was entertained by every body who heard him, in common with himself, of gratitude and admiration towards these gentlemen for their labours on behalf of the society, (hear, hear). The subject was difficult, because he believed that there was no topic so difficult to discuss properly, particularly in presence of the persons concerned in it, as that of personal panegyric. All the gentlemen mentioned in the resolution were entitled to their warmest thanks, but he could not avoid alluding more particularly to one gentleman whose name was mentioned in it. At the investigation of his own good heart and the promptings of his own benevolent spirit, that gentleman had originated the notion of founding that very institution (hear, hear). He had fostered it by his personal exertions, by his intelligence, and by his generosity, and he lent to it the resources of his own purse. He did that in a way which, in the first instance, placed him among those who were said to “do good by stealth, and blush to find it fame,” for one of the largest donations made to the society was made by that gentleman without disclosing his name. However, like all other human actions, that one had its reward. It had been said that one of the most brilliant triumphs of a successful statesman was “to read his history in a nation’s eyes,” but the man who had performed the deeds for which they were now, he hoped unanimously, to thank him, although he might not “read his history in his country’s eyes,” had performed no mean, equivocal exploit, and he could read his history in the joyful eyes of the lone widow or in the happiness of the forsaken orphan, and in the consolation afforded to the broken-down brother in his profession, whose heart he made to “leap for joy.” That was no mean triumph and it was one that the gentleman he had alluded to (Dr. Kinsley) had secured for himself unquestionably (hear, hear). Under those circumstances he would move that the thanks of the meeting should be given to the gentlemen named generally, and to the one he had mentioned particularly, for their liberal donations.

Dr. Banks seconded the resolution, which was carried *nem. dis.*

Dr. Kinsley briefly returned thanks. He said he had received great assistance in his exertions on behalf

of the society from his esteemed friend, Dr. Benson—for without that assistance he did not think the society would have at present an existence, so Dr. Benson was really the person deserving of praise.

Dr. Benson said that Dr. Kinsley knew, although he refrained from expressing it, that he had been himself the most active in promoting the interests of the society. He had done everything, and he (Dr. Benson) had only become a secondary assistant afterwards. He had only rocked the cradle—Dr. Kinsley was the father of the institution (hear and laughter).

A vote of thanks to the honorary officers of the central committee, and a resolution appointing the officers for the ensuing year, having been duly moved and seconded, were adopted.

Dr. Beytagh moved, and Dr. Tufnell seconded a resolution, conveying the thanks of the meeting to the press, which was agreed to.

Sir Henry Marsh then quitted the chair, which was then assumed by Dr. Kinsley.

Dr. Churchill moved that the best thanks of the meeting were due and hereby tendered to the former chairman for his dignified conduct in the chair, and for his kindness in attending the meeting that day.

Dr. James Wharton seconded the resolution, which was carried with acclamation. The meeting then separated.

Reviews,

Observations on Venereal Diseases. By HAMILTON LABATT, F.R.C.S. Fannin and Co., Dublin. 1858.

The treatment of syphilitic diseases has been attended with difficulty and uncertainty, because it has not been sufficiently borne in mind that it is a disease susceptible of considerable modifications, and often complicated with various and even opposite states of the system. This axiom is, perhaps, in no way better elucidated, than by instituting a comparison between the various statements of different celebrated authors, as to the necessity or non-necessity for restrictive measures before and during the administration of mercury for the cure of venereal diseases. We have on one side the statement of John Hunter, that “the manner of living, under a mercurial course, need not be altered from the common, because mercury has no action upon the disease which is more favoured by one way of living than another;” and of Sir Astley Cooper, that the patient “may follow his business or occupation, just the same as before;” while, on the other hand, Mr. Lawrence insists that there are certain rules of diet and management to be observed, in order to insure the favourable action of mercury on the system. To remedy these defects—to point out the proper line of treatment suitable for each class of cases, according to the stage and severity of the disease, and the previous and existing constitutional diathesis of the patient—seems to be the object of Mr. Labatt’s work. To have effected such an object would be a matter deserving of no slight commendation; it could only be effected by one who had been previously well versed in the litera-

ture of the subject, had witnessed the results of various modes of treatment of this proteiform disease at the hands of others; and lastly, had had ample opportunities himself for the practical application of the theoretical and positive information which he had acquired. All these Mr. Labatt seems to have enjoyed. Educated under Carmichael, who first checked the immense loss of life produced by the indiscriminate use of mercury, and Colles, who first laid down those rules for its administration which promise the chief security to the result of our treatment, he afterwards studied under Lawrence and Guthrie; and in the work now before us details the results of his own experience in the treatment of nearly five hundred venereal cases, admitted into the General Military Hospital of Dublin—including primary syphilis; bubo, sympathetic and specific; gonorrhœa; hernia humoralis; and secondary syphilis. It would appear, then, that the materials for the execution of the task were ample (perhaps no better class of patients could be selected), and it only remains to be seen how it has been accomplished.

Our limited space prevents us from attempting any analysis of the work, however desirable such might be; we must, therefore, confine ourselves to a very few selections, merely sufficient to show the style and views of the author. As primary sores, he describes—the *simple primary ulcer*; 2, *the ulcer with elevated margin, smooth surface, and devoid of fungus or induration*; and is satisfied that both these are curable by the non-mercurial plan, but would not hesitate to adopt an alternative course of mercury, if the case became tedious and stationary. The *phagedenic ulcer* is best treated with “the concentrated nitric acid, as the most certain and effectual agent.” While some surgeons have recommended mercury in this form of syphilis, Mr. Labatt says that he has not had, personally, much opportunity of testing its value, but in the hands of others has witnessed a few cases of phagedena without slough, where it was attended with successful results. For the *sloughing phagedena* our chief reliance must be placed in the liberal and repeated administration of opium, not only in consequence of its general anodyne powers, but also because it affords us the best chance of arresting the destructive process of the ulcer, and thereby of preventing the occurrence of fresh sources of hæmorrhage.

Lastly, with regard to the treatment of the *indurated ulcer*—“Although it must be admitted that even the indurated ulcer will heal without the aid of mercury, no practical surgeon will deny that it, above all other forms of primary syphilis, evinces a remarkable obstinacy in yielding to non-mercurial treatment; and so great is the risk of occurrence of secondary symptoms under this plan, that we are scarcely justified in depending on its influence. Mercury, therefore, we conceive to be an indispensable agent in the treatment of indurated syphilis.”

From an official circular, signed by Sir James

McGregor and Sir William Franklin, it appears that the average period required for the cure of 2,827 cases, uncomplicated by bubo, and treated by mercury, was 33 days. Eighty-six cases were treated by Mr. Labatt, in the General Military Hospital, on the principles above stated, and the average period of their treatment, after which they were fit for regimental duty, was $30\frac{1}{2}$ days. Of these 86 cases many were complicated by a high degree of local inflammation; some by phymosis and paraphymosis; some by sloughing and gangrene.

In his description of the different forms of venereal eruptions, Mr. Labatt also follows Carmichael's classification, and enters largely into the various complications and sequelæ of secondary syphilis; nor is the history and treatment of that most important but insidious disease, syphilis in infants, omitted. The author also enters largely into the modern question of treatment by syphilization.

We can confidently recommend Mr. Labatt's work, as giving, in a condensed form, a careful and well-digested exposition of the history and treatment of this terrible disease.

History of the First Battalion Coldstream Guards, during the Eastern Campaign, from February, 1854, to June, 1856. By JOHN WYATT, Battalion Surgeon. 1858.

Mr. Wyatt drew up this very interesting memoir of the services of the first battalion of the Coldstream Guards, in consequence of an official communication received unexpectedly in Dublin, from the Director-General, on the 11th November, 1857, requesting a detailed history, for the purpose of being embodied in the General Report, then in preparation for presentation to Parliament by the Army Sanitary Commission.

On it being forwarded to London, however, the Director-General stated that the space allowed in the Blue-book would necessitate an abridgment, and accordingly, a considerable portion having been retrenched, the general results only of Mr. Wyatt's labours were inserted, with others, in the Report laid on the table of the House of Commons. It is fortunate that any circumstance should have induced the publication, in a separate form, of such very valuable information.

As the anguish of a single captive has been taken to depict the miseries of slavery, so here, in the particulars of a single corps, the mind may realize that never-to-be-forgotten perishing of 10,000 men in seven months—not by the foeman's hand, nor the blast of pestilence, but from the operation of disease produced by causes, most of which were undoubtedly capable of mitigation. If they were not mitigated, as they surely might have been, the Army Medical Department has been most clearly shown to be less to blame than any other. Much more might be said with perfect exactness, for it

will surprise many to learn that the French were far inferior in their sanitary regulations and medical treatment of their army in the Crimea.

Mr. Wyatt gives an accurate account of his battalion of the Guards, during their absence on foreign service, from February, 1854, to September, 1856. Of that period, 627 days were passed in the Crimea, where the battalion landed about 800 strong. At the passage of the Alma they had only 29 wounded, and none killed; at Inkermann, out of 17 officers and 421 actually engaged with the enemy, 13 officers and 197 men (80 killed), or 47 per cent., were placed *hors de combat*. On the 24th of February "the relic of the Coldstream Guards left the plateau for Balaclava, to recruit their strength;" there were fewer than 100 men of all ranks. "For some time previously," says Mr. Wyatt, "it had become quite manifest, that if the men continued to live under the same circumstances, it was but a question of time how long the battalion would live, except on paper;" and, in fact, it is plain that it could not, for military purposes, be said to exist any longer. At the end of 150 days, the finest regiment in the Queen's service had become the merest skeleton. Yet, in the whole of the period of their Crimean service, up to that time, and subsequently, only 189 men were killed in action, or died of wounds inflicted by the enemy.

In the pages of Dr. Wyatt's narrative will be found abundant confirmation of the unusual accession to disease, over and above that which must of necessity attend a state of war, and of the cause of it. The food, unvaried and unwholesome, and consequent insufficient nourishment—the want of proper clothing and shelter—these were the causes, and no other, which, beyond any doubt, gave rise to such unusual and portentous waste of life.

In accordance with the Director-General's letter, Mr. Wyatt offers observations on the nature of the climate, diet, water, clothing, shelter, cooking, transport, which, in the author's opinion, may have tended to excite disease. The climate was good, and did not influence disease; and he considers it quite a fallacy to suppose, as it was generally in England, that any peculiar form of fever is endemic in the Crimea. In diet, the error of the excess in animal food and stimulating drinks; and the superiority of the principles upon which the Turkish and Russian soldiers are dieted, "who are as capable of undergoing all the fatigues of active service as British soldiers," are most judiciously remarked upon.

We should be glad to find room for more extended comments upon this very useful and interesting publication, but must here confine ourselves to extracting two passages—one of public and professional interest, and the other more gratifying, as reflecting honour upon the Medical School of Dublin. On his resumé of the casualties, p. 99, Dr. Wyatt remarks:—

"The detailed return of diseases displays the remarkable and fortunate circumstance of the total absence in the regimental hospitals of two diseases, ophthalmia and hospital gangrene, which in the Peninsular and former wars were so great a scourge to the army; and this immunity could not depend solely upon the salubrity of the Crimean climate, inasmuch as some of the field hospitals of the French army abounded with these diseases in an aggravated form. Much was, no doubt, due to the hygienic and sanitary principles, which were so repeatedly urged upon the attention of regimental surgeons by the principal medical officer of the Army.

"The same return also demonstrates an unusually small proportion of admissions from another class of diseases, 'pulmonic and rheumatic,' which, under the conditions in which the men were existing during the first winter, might have been supposed likely to be prevalent; whereas the admissions for pulmonary affections only numbered 125, or 4·03 per cent. of the total number of admissions into hospital, while the number of rheumatic affections admitted during the entire period were but 45, 1·45 per cent. of the whole. The most severe cases of pneumonia, occurred during the second winter, when the condition of the men was more allied to that of barrack life, and when they were occasionally exposed to great variations of temperature from the often over-heated huts; but flannel shirts having been issued to every man of the battalion, it may be fairly supposed that they afforded a great protection from both classes of the disease here alluded to.

"The contrast with reference to the infrequency of pulmonary affections amongst the men while on active service, compared with the number of that class of disease which would have probably occurred in a battalion of guards stationed in one of the London barracks, displays the influence of pure air, freedom from the monotony of barrack life, and absence from overcrowded and ill-ventilated sleeping-rooms, combined with the protecting influence of flannel under-clothing, in producing an immunity from that protean disease, Pulmonary Consumption, which is the most frequent of all the causes of invaliding and premature mortality amongst the non-commissioned officers and men of the Foot Guards in London, and so effectually resists, in its onward progress, all the resources of the medical officers. It appears that while 187 non-commissioned officers and men were invalided home on account of disease, only 12 of that number were affected with pulmonary consumption, or 6·41 per cent. of the total; and, on the other hand, there were several instances of the incipient stage of this disease being entirely arrested, both amongst the officers and men, while abroad, in whom, since returning to England, it has resumed its activity, and advanced to a fatal issue."

We conclude with the following most honourable tribute to the labours and sound teaching of the individual whose name is so prominently introduced:—

"The author cannot, with justice to the dictates of his own conscience, refrain from placing on record the very great practical advantage which he has individually derived in the treatment of the sick on service, from the sound and original views on the principles of the treatment of fever, enunciated in a small work by that distinguished Irish physician, Dr. Corrigan, who, from long experience, has evidently made this most important subject entirely his own. It is to be regretted that his ideas were not more freely promulgated, as their value will be fully acknowledged by every military surgeon acquainted with them, and by none more than by some of the French, who, during the epidemic of low fever, which so decimated their army during the second winter's campaign, recognized the soundness of the precepts by their practice; and this they were enabled to do, with the greatest benefit to their sick, by a timely

and liberal present of a large quantity of port wine, made to them on that occasion by that queen of nurses, Miss Nightingale. Dr. Corrigan's publication should certainly form part of the portable library of every young military surgeon."

1. *Silver Sutures in Surgery—The Anniversary Discourse before the New York Academy of Medicine*, 1858. By J. MARION SIMS, M.D.
2. *Remarks on Vesico-Vaginal Fistula, with new mode of Suture*. By P. BOZEMAN, M.D. Montgomery, Ala., 1856.
3. *Urethro-Vaginal and Vesico-Vaginal Fistulas, &c.* By the same. 1857.

Right willingly do we accord to our Transatlantic brethren the praise due to them for their practical investigations, and the ingenious plans suggested for the cure of this loathsome complaint—too long the opprobrium of obstetric surgery.

One fact must painfully strike us—the frequency of vesico-vaginal fistula in the States; surely it indicates a great amount of ignorance and rashness in American midwifery. If we divide these accidents into three classes—viz., 1st, where, from the great loss of substance, or the fistula communicating with the cavity of uterus, an operation is impracticable; 2ndly, cases in which it has failed; and lastly, where the efforts of the operator have been crowned with success—now, admitting that the celebrity of Messrs. Sims and Bozeman may have attracted patients from distant parts, and that a more than average number have been cured by their unrivalled dexterity as operators, yet to reflect that in a single year they have had—Dr. Sims 30, and Dr. B. 21, completely successful operations—51 cures of patients (we presume selected), added to those either rejected or unsuccessfully operated on, would make an aggregate amount absolutely appalling to contemplate. We may justly be thankful that similar opportunities are not afforded to us. Very recently we had a lady from New Orleans, whose case was pitiable in the extreme. The recto-vaginal septum had sloughed; the occlusion of uterus was complete; and the urine and fæces passed into a cloaca formed by the posterior wall of rectum and cavity of bladder. The details of the ignorance and brutality evidenced in this instance would harrow the feelings.

The first paper of Dr. Sims was published in the January number of *American Journal of Medical Sciences*, 1852; in it he asserts he leaves nothing to be desired in the treatment of this heretofore incurable affection. He claims, as original, clamp suture, silver-wire ligature, position of patient on her knees, with head and thorax depressed, self-retaining catheter, and duck-bill-mirror speculum. The clamping with compressed shot was suggested many years ago by Mr. McClean, and used, with silver-wire suture, by Sir P. Cramp-ton, in a case of cleft palate. Mr. Wilde, also, was

in the habit of using silver pins as sutures, in many of his plastic operations. Platina-wire (in many points superior to silver) has been employed by Surgeon F. Lestrang; and therefore silver as a suture cannot be considered "the great surgical achievement of the nineteenth century;" and for the first time we learn, in page 43 of Dr. Sims' Anniversary Discourse, Nov. 1857, that "Europe, through this great man (viz., Prof. Simpson), calls for improved measures of safety, which America now proudly lays at her feet." The concluding sentence of the discourse outherods Herod. Alluding to the union of the medical profession for the establishment of the Women's Hospital, New York, he exclaims—"Was there ever such a union! Pardon me if I should call it a union by the first intention, effected by silver sutures." Well may we say, that the orator, like the poet, *nascitur non fit*. Even the position (whereby the whole surface of the vagina was seen at one view, for the first time, by any mortal man) has been changed. Now the patient may lie on the left side, with more ease to herself; a proposition we don't deny, as we found, on repeated trials, the first absolutely intolerable to our patients. Lastly, within even the space of a single year, the clamp has been deserted, and now the simple silver wire, twisted, is the *ne plus ultra*. What next will emanate from the Professor's excitable brain, heaven only knows.

And next a few words on Dr. Bozeman's two brochures. In the first, published 1856, he makes no allusion to his having been indoctrinated by Dr. Sims into his peculiar method of operation; but first damming him with faint praise, he condemns the clamp suture, as liable to excite irritation, and cut out; and in many cases followed by gangrene and sloughing. This Dr. Sims imputes to Dr. B.'s not understanding its principle of action, and therefore failing in its practical application; and, quite disheartened with his ill success—by mere accident, in fact, while buttoning his waistcoat—he fell upon a plan of fastening the wire, that in awkward or inexperienced hands it became easier of application. This is a Rowland for an Oliver with a vengeance. Dr. Sims exclaims—"Six successive failures, out of seven operations with the silver suture, secured by Dr. B.'s method, was a most astonishing result."

In Dr. Bozeman's second production, *North Amer. Med. Chir. Review*, July to Nov. 1857, he takes a more ambitious stand. He commences by impressing on his readers the superiority of the button-suture, but changes his mind from silver to lead; quotes the cases of Baker, Brown, and Spencer Wells, as indubitable evidences of its excellence (and, by the way, is it not remarkable that every new plan of operation has at first been successfully tried); and finally, he remarks that the superiority of the button-suture over all other methods will be shown by the certainty which will follow its adoption.

Dr. B. then comments on Velpeau's divisions,

and has no objection to the classifications of this illustrious author and operator, and assures him he shall adopt it, as far as it goes; but adds two more of his own, which he again subdivides into four varieties. The nineteen cases are then detailed; operation described in a few words; no difficulties from narrowed vagina, distance of size of fistula, protrusion of bladder, obscuration of blood and urine, &c.; no, all goes on smoothly as a marriage-feast: the ligatures appear inclined to adapt themselves; the magic button is fitted; and in nine days the cure is complete. Well may we conclude, with Dr. Bozeman's own operation, that his success was a most remarkable, and heretofore unheard-of coincidence.

In Dublin, we are happy to say, there have been several successful operations, founded on Dr. Hayward's original plan of splitting the layers of the vesico-vaginal septum, and keeping the opposed margins in opposition with quills of gutta-percha and sutures of common brown thread, instead of silk. Three cases were completely closed in five days by Drs. M. Collis and Sawyer, and three others were remarkably relieved within the past year. Our impression is, that where the fistula is recent, and where the loss of substance is not too great to prevent apposition of the split edges, that it is almost a matter of fancy whether the operator select the clamp of Sims, the button of Bozeman, or the time-honoured quilled suture of our student's days.

Selections from British & Foreign Journals.

DROPPING A SOLUTION OF CHLORATE OF SODA INTO THE TRACHEA, TO ASSIST IN THE TREATMENT OF CROUP, AFTER TRACHEOTOMY HAD BEEN PERFORMED.

M. Barthez, Physician to the Hôpital Sainte Eugénie, has been for some time in the habit of dropping a warm and rather concentrated solution of chlorate of soda into the trachea of young persons affected with croup, who have undergone the operation of tracheotomy. The following reasons have induced M. Barthez to adopt this plan, so ancillary to the treatment of croup after operation. For the last three months there prevailed in the neighbourhood of the Sainte Eugénie Hospital an epidemic of croup, which owed its peculiar characters to the fact that it immediately followed or accompanied an epidemic of influenza, which was at that time in full force. This croup, to use the happy expression of M. Pidoux, was more catarrhal than diphtheritic—that is to say, the false membrane was usually found in the bronchi, trachea, and larynx; rarely in the pharynx, and seldom, if ever, in the nasal fossæ. When in the throat, it was of small size and extent, and never assumed a gangrenous appearance. The glands in

the neck were neither enlarged nor painful. The constitutional symptoms were scarcely at all developed; two children died without any. After tracheotomy the children died with symptoms of slow asphyxia. All that were affected died, without exception, and in most the trachea and bronchi were found filled with false membrane.

M. Barthez recollected then some experiments that he had performed last year, on the comparative effects of chlorate of soda and chlorate of potass, with a view to determine the local action of the two chlorates on false membranes. He had taken two strips of false membrane, of the same dimensions, and had placed them in contact, one with a concentrated solution of chlorate of potass, the other with a concentrated solution of chlorate of soda. The false membranes were by degrees altered; they became soft, and lost their opacity; their structure became more open, then transparent, then, as it were, diffuent; and the membranaceous form disappeared, without, at the same time, all cohesion being lost. In some cases the dissolution was complete. The same thing occurred in the two solutions, with this exception, that the alterations began much later with the chlorate of potass, and required a much longer time to complete them. A portion of the same membrane, placed in water, preserved its natural appearance for several days. M. Barthez had likewise made similar experiments on the mucus which escaped from the canula after tracheotomy, but he had found no difference between the action on it of pure water and of a solution of either of the chlorates.

Recollecting these experiments, he hoped, in the present epidemic, to make a practical use of the knowledge he had acquired; and he determined to drop into the canula a warm solution of chlorate of soda. He did not expect to obtain a solution of the false membranes, but only a softening of their surface, and consequently their more easy separation, and more rapid and complete expulsion.

Not knowing how the trachea and bronchi would bear the direct action of the chlorate of soda, he began by dissolving fifteen grains in an ounce of water, and rapidly increased the strength of the solution to a drachm of the salt to an ounce of water; and a few drops of this solution were dropped through the canula frequently, and in small quantities at a time.

The results were very encouraging. When this experiment was commenced, all the patients who had been hitherto treated had died, and there were at the time seven children under treatment, who had been all tracheotomized. A few days after the commencement of this novel mode of treatment, four of these children were out of danger. Three of them afterwards convalesced; the fourth died, some time after, at its parents' house, having been pronounced sufficiently recovered to leave the hospital. Here was at least proof of

the harmlessness, if not of the utility, of the proceeding.

In answer to the objection, that there is a great difference between retaining false membrane in a solution of chlorate of soda, and dropping on it a few drops of this solution, which is immediately rejected by coughing, the following is M. Barthez' reply:—"The sister attached to my ward, who is very intelligent, and devoted to the patients, was desired to use the drops repeatedly. She was not long in observing, that soon after their use the expectoration became more easy, and was usually accompanied with a rejection of a considerable quantity of pseudo-membranous fragments." On the other hand, the following is an example (among many) of the progress of a patient who was not so treated:—"In a child operated on several days ago, the wound was enlarged, its edges being attacked with phlegmonous inflammation; and one could easily see into the trachea. A yellow continuous patch of false membrane extended from the external orifice as far as the eye could reach, forming a tube, which was moulded over the canula when it was introduced. The application of nitrate of silver had no effect on the false membrane. The noise which the air made in traversing the canula was dry, and interrupted every moment by a sort of dry *claquement*, but without any expectoration. The drops frequently repeated (about every quarter of an hour) brought on each time a fit of coughing. At the end of about two hours a very violent fit of coughing was followed by a terrible paroxysm of suffocation. The sister at once removed the canula, and the resident surgeon being summoned, removed a piece of false membrane which appeared at the orifice; it was quite hollow, and terminated in several ramifications; that is to say, it had filled the trachea, and passed down into the bronchial tubes. The patient was sensibly relieved, and there was no further relapse.

"Another objection—the use of the drops being followed by a fit of coughing, and the ejection of some fluid mixed with mucus and false membranes—I am asked if the simple shock caused by the introduction of warm water would not be sufficient to rupture the adhesions of the false membranes, and expulsion?

"To satisfy myself if this were so, I determined to use drops merely of warm water. A young patient was soon found, under circumstances suitable for the experiment—namely, that after the operation, the noise produced by the passage of air into the canula was excessively dry, and there was no ejection of mucus or false membrane. The warm water was dropped in repeatedly during the next six hours; and notwithstanding the cough which it induced, no other fluid than the water which had been dropped in was expelled.

"Then the sister, seeing the dyspnoea increase, had not courage to continue the experiment any longer, but substituted the solution of chlorate of

soda for the water. This was dropped in as before, every quarter of an hour, and in about an hour a fragment of false membrane was expelled; then several others in considerable quantity, at intervals, until the following day. The appearance of suffocation diminished in proportion, and as there was no fresh exudation, the little patient was cured rapidly, and on the fourth day we were able to remove the canula."—*Gazette Medicale*.

RHEUMATIC ALKALINURIA.

Our readers will understand the name we have given above, when we state that the urine was alkaline in a case of rheumatic fever recently in St. George's Hospital, under Dr. Fuller's care. There may appear to be nothing extraordinary in this fact, but it is nevertheless not a common one. The patient was a young man, who was admitted with rheumatic fever and pericarditis, with free acid perspirations and an alkaline condition of the urine from the commencement. The boy has got well, with very mild alkaline treatment; in fact, as we heard Dr. Fuller say, he had scarcely any treatment at all, or was upon no special treatment. In relation to this condition of the urine in rheumatism, Dr. Fuller, in an extensive experience of this affection, has not met with more than five or six instances of it. Although it may be present, it forms no obstacle to the internal administration of alkalies for the treatment of the rheumatism, as, curiously enough, the urine will in many instances, notwithstanding, resume its acid condition. This, however, did not occur in this boy, as the urine continued alkaline. Although the boy had no symptoms referable to disease of the bladder, it is it is quite possible there may have been some condition of the mucous membrane either of the bladder or of kidneys which permitted it to secrete an alkaline fluid, which, on simple admixture with the urine, rendered that fluid alkaline,—a change which Dr. Owen Rees believes to be the cause of alkaline urine and phosphatic deposits in the great majority of cases that come under treatment. We think it right, however, to draw the attention of urinary pathologists to the consideration of alkaline urine in rheumatism.—*Lancet*.

DIFFERENTIAL DIAGNOSIS OF OVARIAN DROPSY AND ASCITES.

No fewer than four cases have recently come under our notice, in which patients suffering from ovarian dropsy had been subjected to prolonged diuretic and mercurial medication, in the belief that the disease was hepatic ascites. In one case, a short time ago, in a large metropolitan hospital, the reverse mistake was made, and the peritoneal cavity injected with iodine, in the hope of obliterating an ovarian cyst, which, as the autopsy a few days afterwards proved, did not exist. Rumour states that one or two other accidents of the same kind have occurred since the iodine-injection plan came into vogue, but we are not in a position to substantiate them. Facts like these prove that the differential diagnosis between these two affections is either not so generally understood as it ought to be, or else that it is a matter of extreme difficulty. Now, there is one sign which hitherto we have never found to fail, but which is, we believe, as compared with its value, but little known. In more than one work on the diseases of women, we find no mention of this symptom, although in extreme cases it is the only one which is available. The sign referred to is percussion of the lumbo-lateral region. If, in a case of ascites in which the distension is so great that the hydrostatic line of level in front is not changed by posture—and it must be remembered, that only in ovarian cases in which the cyst is so large

as to simulate this extreme condition, ought any difficulty to occur—if, in such a case, the patient be made to sit up in bed, and the loins be percussed, it will be found that the note is the same (usually dull) on both sides. If an ovarian case, no matter how great the distension, be treated in the same way, one loin will be found to be clear, and the other quite dull. The explanation is obvious: in ascites the air-containing coils of gut float as far forwards as their mesenteric attachment will permit, while, in the case of an ovarian cyst, they are pushed over to the healthy side. It is not easy to conceive any condition of things, excepting entire exclusion of air from the whole tract of intestines, which could diminish the trustworthiness of this symptom. It indicates also, with unfailing accuracy, on which side the ovarian cyst, if it exist, has originated.—*Medical Times and Gazette*.

ILL EFFECT OF FERRUGINOUS MINERAL WATERS UPON LACTATION.

M. Stanislas Martin observed, at Chateaufort, in Auvergne, that gallinaceous and ruminant animals were exceedingly fond of the ferruginous waters, but that these exerted the mischievous effect of drying up the milk of the cows. Wishing to see whether this effect extended to the human subject, he induced a young mother to make use of some of the strongest of these waters during several days, and the result was, that if she had continued to drink them, all her milk would have disappeared. From this fact, among others, he cautions practitioners against prescribing ferruginous substances for nursing women, and when their employment seems clearly indicated.—*Bull. de Thérap.*, and *Medical Times and Gazette*.

ON SOME RECENT CHANGES IN MEDICAL EDUCATION AND EXAMINATION.

Some weeks since we alluded to a change about to be effected in the present curriculum of education of students preparing themselves for the diploma of the Royal College of Surgeons; and we are now able to announce, that the change, which has been some time contemplated, will forthwith be carried into operation. The results of this change will be, that while the mere attendance on lectures is diminished, the examinations at the College will be more stringent than heretofore, and will be held upon two separate occasions, instead of one, as at present. The candidate may present himself for his first examination, which will consist chiefly of Anatomy and Physiology, at the termination of the second winter session of his attendance on lectures and hospital practice; the second examination will take place at the termination of the curriculum, and will comprise surgery and pathology. It is also understood that a portion of the examination will be conducted by means of written papers—a very excellent plan for eliciting the information of candidates, and a much more satisfactory one than that of mere oral conversation, in which ignorance may sometimes be successfully masked, and ability may remain undiscovered.

It is obvious that, by the changes now proposed, the system of *grinding* will receive a heavy blow; for when students are compelled to present themselves at two separate examinations, held at distinct intervals, and when they are required to write their answers, it is quite evident that the plan of cramming a man for examination in a few weeks must soon come to an end; while the diligent student will have the gratification of exhibiting, at progressive intervals, the advance which he has made in the different branches of his profession.

The compulsory attendance on lectures is very much diminished in the forthcoming regulations; for although the subjects of the lectures remain unaltered, a much smaller number of courses is required than before. This will be, no doubt, a great boon to the student, who

will thus be relieved from the necessity of attending, year after year, courses of lectures upon the same subject; while he will have more time to devote to the practical operations of the dissecting-room, and to attendance in the wards of the hospital. It appears to ourselves that the oral lectures in the medical schools have been too much amplified of late years; and that, in the zeal of each lecturer to expound in all their details the facts and bearings of his own speciality, the students have been bewildered with an infinity of words, while the great landmarks of the profession have been almost lost amidst the *verbiage* with which they were surrounded. Not many years since, two courses of anatomy and physiology were delivered at each of the medical schools, in each winter session; and we are not sure that, in the present day, when those courses have been indefinitely amplified, our rising surgeons and physicians have derived much benefit from the change. It is, of course, desirable that medical science should be cultivated to its fullest extent, and in all its departments and dependencies; but life is short, and art is long; and the average period allowed to medical students to complete their curriculum is far too brief to allow them to do more, under ordinary circumstances, than to acquire a fair general knowledge of the theoretical and practical subjects presented to their notice; more especially when it is remembered, that a great majority of our alumni are compelled to enter upon the responsibilities of practice at the age of twenty-one.

These considerations, in our opinion, derive still greater weight from the circumstance that the curriculum of the College of Surgeons is extended over only four years—a period, in our judgment, which is barely sufficient to make a man of ordinary capacity acquainted with the outlines of his profession; more especially when we recollect, that out of these four years, the lectures and hospital practice occupy scarcely two years and a-half, and the rest of the time is pretty well left to the student's own disposal. But perhaps it is necessary to manufacture surgeons in a short time, and at a cheap rate; and in the present demand for medical men, particularly in the public service, there may be some justification for the plan adopted.

We have received from the Society of Apothecaries of London the Regulations for the new curriculum of education proposed by the Court of Examiners of that body, together with some prefatory remarks by which the Regulations are accompanied. By this document it would appear, that the Court of Examiners have altered their curriculum, in conjunction with the Council of the College of Surgeons, and in conformity with the views advanced by the latter body. The number of subjects required by the Apothecaries' Society is greater than that required by the College, with the exception, of course, of Surgery; but the general features of the two plans are pretty much the same.

In the department of Practical Medicine we perceive that a very important change has been made in the Regulations of the Apothecaries' Society; for the instruction in clinical medicine is now to consist of a distinct course of lectures on that subject, while the second course of theoretical lectures on the Practice of Medicine is abolished, or at least is not made imperative.

It may be interesting to our readers, and especially to the younger part of them, to know that these regulations will come into effect on and after the 1st of August next, after which period the examinations will be divided into two parts, to be held on two separate days. At the College of Surgeons, as we have before mentioned, the first examination will comprise, chiefly, Anatomy and Physiology, and the second will embrace Pathology and Surgery. At Apothecaries' Hall the first examination will include Latin, Chemistry, Materia Medica, Botany, Physiology, and Anatomy; and the second will be chiefly devoted to the Practice of Medicine and Midwifery, together with Pathology and Medical Jurisprudence, including Toxicology.—*Medical Times and Gazette.*

EAST INDIA COMPANY APPOINTMENTS.

WRITTEN EXAMINATION OF CANDIDATES FOR THE APPOINTMENT OF ASSISTANT-SURGEON.

SURGERY, BY MR. STANLEY.

1. Describe the chief consequences to which stricture of the urethra may lead; and state briefly the best modes of treating them.
2. Describe the ordinary progress of a case of psoas abscess; and in the event of death, the most usual appearances found on the autopsy.
3. Necrosis of the last phalanx of a finger often follows a rough puncture in a person in feeble health; describe the appearances of the finger during this disease, and say how you would treat such a case.
4. Describe the usual appearances of the blood and bloodvessels in acute inflammation, as seen in the transparent parts of mammalia and reptiles.
5. In what injuries and diseases of the skull would you think it right to remove bone with the trephine or other instruments?
6. Describe the operation for the removal of the eyeball; and enumerate the principal cases for which you think it advisable.
7. A man, advanced in years, and apparently free from complaint, except that his urine was occasionally tinged with blood, sustained a severe fall; shortly afterwards he experienced a violent desire to pass urine, and his bladder was greatly distended. His efforts at micturition were at first wholly ineffectual, but after repeated straining the impediment gave way, and the urine flowed in a full and uninterrupted stream, as it had always previously done. What was the cause of obstruction in this case?

NATURAL HISTORY, BY DR. HOOKER.

(Five or more of the following Questions to be answered.)

1. What are the distinctions between minerals and organized beings?
2. How does the root of a woody flowering plant differ from the stem in structure and development?
3. What is meant by the natural system of botany? what are its objects; and upon what principles is it constructed?
4. Describe the formation of the stem in monocotyledonous and dicotyledonous plants.
5. To what classes, divisions, and orders of the vegetable kingdom do the plants producing the following substances belong? what are their scientific names? calumba, cascarella, nutmeg, rhatany, black-pepper, ginger, and sarsaparilla.
6. From what countries do these plants come; in what form do the products arrive; and how would you distinguish good from bad samples of them?
7. What are the botanical characters of the natural orders labiatae, rosaceae, coniferae, urticae, and convulvaceae?
8. What is coal; by what classes of plants is it supposed to have been formed; and what are the chief products of its combustion?
9. In heating barracks or hospitals, what are the comparative values of coal, coke, hot water in pipes, and hot air in flues?
10. In examining materials for bedding, clothing, &c., how would you distinguish, microscopically or otherwise, woollen, linen, cotton, hemp, and silk fabrics?
11. What are the principal points to be attended to in the preparation of vegetable extracts?
12. State the distinguishing characteristics between an insect and a crustacean.
13. Define the different modes in which the respiratory function is performed in the animal kingdom, and give examples.
14. Define the terms sensation, innervation, development, evolution, absorption, natural law.
15. What is sound? what is meant by the propagation, conduction, and dispersion of sound?

ANATOMY AND PHYSIOLOGY, BY MR. BUSK.

1. Describe the parts concerned in the different kinds of inguinal hernia.
2. Describe the vertebral column, its relations and functions. Define a typical vertebra in the terms employed by Professor Owen.
3. Describe the anterior, middle, and posterior mediastina, and the parts contained in them, noting the relative position of those parts.
4. Mention the chief anatomical peculiarities which distinguish the fœtus from the adult.
5. Describe the minute structure and modes of development of bone.
6. Describe the mode in which the absorption of different substances is effected in the stomach and intestines; indicating also the course of the chyle, and the changes it undergoes in its passage to the blood.
7. Indicate the source of heat in animals, the circumstances by which it is augmented and diminished, and the means by which it is prevented rising beyond a certain point.

MEDICINE, BY DR. PARKES.

1. Describe the causes and treatment of the following forms of motor paralysis:—(a) paralysis of the lower extremities; (b) paralysis of both upper extremities, or of some of the muscles of them; (c) paralysis of one or more muscles, or groups of muscles, of the face.
2. Describe a fit of epilepsy, and the distinctions between it and forms of disease resembling it.
3. Enumerate the better known abnormal, chemical, and physical alterations of the blood.
4. What are the chief causes of blocking up of blood-vessels (arteries and veins); and what are the results of blockage of arteries at the base of the brain, of the pulmonary arteries, and of the femoral veins?
5. Describe the morbid anatomy of acute tuberculosis.
6. What are the symptoms, diagnosis, and treatment of acute dysentery and of tuberculous diarrhoea?
7. Give the symptoms, effects, and treatment of whooping cough.
8. Describe the symptoms and various modes of treatment of displacements of the uterus.
9. What are the effects of habitual excess in the use of alcoholic drinks?

UNIVERSITY OF ST. ANDREW'S.

The following gentlemen, having previously obtained the degree of Doctor of Medicine, have been placed on the list of honours:—

Class I.

RULE, SAMUEL, London Hospital.
COOK, HENRY, H.E.I.C.S.
BOWEN, ESSAY, late Royal Artillery.
POTTER, HENRY, Limerick.

Class II.

In the examination for honours, the following points are taken into consideration:—

1. The manner in which the candidates answer the questions contained in the five examination papers for ordinary degrees.
 2. The manner in which they answer the questions contained in an additional general paper, embracing Comparative Anatomy and Physiology, the higher departments of Human Physiology and Pathology, and Medical Jurisprudence.
 3. Their readiness in diagnosis by the bedside.
- As this is the first examination for medical honours in the University of St. Andrew's, we subjoin a copy of the general Examination Paper, and a sketch of the mode in which the Clinical Examination was conducted.

EXAMINATION PAPER FOR HONOURS.

1. Explain the mechanism by which the eye is enabled to adapt itself to different distances.
2. Give a general sketch of the organs and process of respiration in birds, reptiles, amphibians, and fishes.
3. Describe the organs and process of reproduction in insects, and state what peculiarities in reference to reproduction are exhibited by bees and aphides.
4. What relationship has been established between the cystic and the cestoid entozoa? Describe the experiments which led to the discovery of this relationship, and show the practical value of the facts which have been ascertained.
5. A stomach with its contents is sent to you for examination in a case of suspected poisoning. State what processes you would adopt in searching for prussic acid, opium, oxalic acid, sugar of lead, or strychnine.
6. What symptoms and physical signs would lead you to suspect fatty degeneration of the heart? Describe minutely the appearances you would expect to find after death, and explain the origin of the fatty matter.

SKETCH OF THE CLINICAL EXAMINATION CONDUCTED AT THE ROYAL INFIRMARY, DUNDÉE.

I. A medical case assigned to each candidate by the Examiners, observations made during a limited time, and afterwards reported on *ad voce*, from notes taken by the candidates at the bedside.

II. These special types of disease observed and reported on by each candidate in succession as follows:—

a. Encephaloid tumor of liver to be examined by physical diagnosis only. Time allowed, one minute and a half.

b. Moderate cyanosis, feeble circulation, heart's sounds normal. Probable emphysema of lung. Time allowed, one minute and a half.

c. Subacute phthisis pulmonalis, well-marked hectic. Time allowed, one minute and a half.

III. Eleven specimens of urine, including normal and abnormal types, to be observed and reported on *ad voce* in the presence of the Examiners.

It has been resolved that if a candidate does not acquit himself creditably in the clinical examination, no amount of excellence in the other departments will entitle him to a place on the list of honours.

BELFAST MEDICAL SOCIETY.

The thirty-fifth anniversary dinner of this influential and long-established professional society took place, on Tuesday evening last, at Mr. Thompson's Rooms, Donegall-place. It was presided over by Dr. Halliday and Dr. Murney, the president and vice-president, respectively, of the evening. The attendance was not so large on this occasion as usual, several causes conspiring to increase the number of unwilling absentees. The following are the names of those members of the society who were present:—Dr. Halliday, president; Dr. Murney, vice-president; Dr. Patterson, treasurer of the society; Dr. Robert Bryce, Surgeon Browne, R.N.; Dr. William Aickin, Dr. Dunkop, Holywood; Dr. Jas. Moore, Dr. Heaney, Surgeon Henry Johnston, Surgeon J. Smyth, Castle-place, and Dr. Robert Stewart, Resident Physician, District Hospital for the Insane.

The medical officers of the garrison were invited as guests.

After the usual toasts of "The Queen," "The Prince Consort, and the rest of the Royal Family," "The Lord Lieutenant and Prosperity to Ireland," and "The Medical Departments of the Army and Navy" were duly honoured.

The President proposed the peculiar toast of the evening, "The Belfast Medical Society," which was

ably responded to by Dr. Murney, on the part of Dr. Pierie, the society's president for the current year, but whose place was obliged to be vacant, owing to a recent domestic affliction.

"The Clinical and Pathological Society was coupled with the name of Surgeon Browne, its President;" in giving which from the chair.

The President, in feeling terms, referred to its founder, the late Dr. Malcolm, who was so bright an ornament of the profession, and whose premature removal they all continued so greatly to deplore.

Surgeon Browne returned thanks; and, in the course of his excellent observations, in connection with the all-important objects of the Pathological Society, he said, nothing should be left undone, during his year of office, to sustain the high position it had attained as a scientific body, or conduce to its increased usefulness, in the promotion of the reading of cases of interest at their weekly meetings and discussions, which were for their mutual improvement, and so productive of benefit to all parties.

"The Medical Charities of Belfast" was replied to by Dr. James Moore, on behalf of the General Hospital, in very suitable terms, who showed how great were the advantages of the pupils who attended the hospital, and the testimony which was borne by the public examining bodies to their great practical knowledge.

Dr. Heaney replied on behalf of the "Dispensaries," in the absence of Mr. Johnson, who had previously left the room. In the course of his observations—which were very eloquent, and to the purpose—he said that he had frequent opportunities of becoming well acquainted with the feelings of those parties who had recourse to dispensary relief, and he felt great pleasure in now stating to the assembled profession, that the attendance given by the dispensary surgeons, and the general system in operation in regard to the working of the dispensaries, were highly popular amongst the poorer classes, who always spoke of the medical attendants in the strongest terms of praise. Unconnected as he (Dr. Heaney) was with the dispensaries, he was thus enabled to speak his mind freely and disinterestedly, (hear, hear).

Dr. Dunlop, of Holywood, in referring to the Belfast Union Hospital, with which he had been formerly connected, and the large advantages which Dr. Moore had stated—and that most truly—the pupils possessed who attended the General Hospital, said he could not let this opportunity pass by without doing justice, to the best of his ability, to one of the most pains-taking teachers he ever met with, as a sound clinical instructor. He alluded to Dr. Seaton Reid, the Physician of the Union Hospital, who most assuredly never spared himself in making the great resources of his hospital ancillary to the best interests of those pupils who availed themselves of its more than ordinary advantages for the making of a sound practitioner, (hear, hear).

"The Medical Benevolent Fund Society of Ireland, coupled with the name of Dr. Robert Stewart."

Dr. Stewart returned thanks, and said it afforded him much pleasure to say, that the operations of this branch of the Society (the first one which had been established) had been more successful this year than any previous one, a large number of country practitioners—to their great praise be it spoken—having liberally and cordially responded to the appeal made to them on its behalf. He impressed on the profession the great necessity there was for united action in a cause which ought to call forth their warmest sympathies—that cause being no less than their poorer brethren, together with that of the widows and orphans of deceased practitioners, left without any means of support! (hear, hear).

"The Health of the Treasurer of the Society, Dr. Patterson," was received with loud applause, and responded to by that gentleman with his accustomed ability. He stated that the funds of the Society were never in a more prosperous state than at present (hear, hear), and that new blood was each year being infused into

their ranks by the admission of new members, one of whom he was happy to see present; and, as the "worthy son of a worthy sire," he begged to propose, "The health of Dr. William Aickin."

Dr. Aickin returned thanks.

Dr. Patterson again rose, and proposed in glowing terms the health of Dr. Burden, regretting, at the same time, his absence (as also that none of the Medical Professors of the Queen's College attended to-day), which was the first time he had not been at their annual dinner, and which would not now have been the case but for ill health. The company drank the Professor's health with the greatest enthusiasm and all the honours.

Surgeon Johnston (on his return to the room) proposed, "The Medical Association of Ireland," showing the great services it was rendering to the dispensary practitioners in particular, and its strong claim for the general support of the profession in Ireland. The toast was received and drunk with loud applause.

The healths of Dr. Haliday and Dr. Murney, the President and Vice-President of the evening, were warmly given, and suitably acknowledged; also that of Dr. Drennan, the respected and able Secretary of the Society, was proposed by Dr. Heaney in eloquent terms, his absence being greatly regretted.

In the course of the evening some further healths and toasts were given and replied to, and shortly after eleven o'clock the company separated, highly delighted and pleased with this reunion; and not less so with the exceedingly good attendance, and the general arrangements of the dinner, on the part of Mr. Thompson, together with the wines, which were, as usual, abundant, varied, and of excellent quality.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

At a meeting held on June 7th, the following officers were elected to serve for the ensuing year:—

President—James W. Cusack.

Vice-President—Chr. Fleming.

Secretary of the College—Edward Hutton.

COUNCIL.

Sir Philip Crampton,
Arthur Jacob,
Thomas E. Beatty,
William Hargrave,
Andrew Ellis,
Robert C. Williams,
Robert Adams,
James Barker,
William Colles,
John H. Power,

Hans Irvine,
James S. Hughes,
Edward Hutton,
Robert Pentland,
Samuel G. Wilmot,
Augustus E. Tabuteau,
Thomas L. Mackesy,
Auley P. Banon,
Rawdon Macnamara.

On the 4th of May the following officers were elected:—

Court of Examiners—Josiah Smyley, R. G. H. Butcher, Richard Tuohill, Thomas Byrne, M. H. Stapleton, B. W. Richardson, Edward A. Stoker.

Examiners in Midwifery—Wm. Jamison, Robert Johns, Jerome Morgan.

MEDICAL ASSOCIATION OF IRELAND.

The Anniversary Meeting took place on Monday, June 7, at the College of Surgeons, and was most successful. A great deal of important business was transacted, and many suggestions for future proceedings made and adopted. Dr. Mackesy was elected President, in place of Dr. Kingsley, who retires; and arrangements have been made to carry out the objects of the Association during the ensuing year, vigorously and effectually.

VACCINATION BILL.

A Bill to make further provision for the practice of Vaccination in Ireland has been brought into Parliament by Lord Nass and the Attorney-General for Ireland. It consists, besides the preamble, of two clauses only, as follows:—

1. As soon as may be after the passing of this Act, the committee of management of every dispensary district in Ireland shall, subject to the approbation of the Commissioners, divide such dispensary district into so many vaccination districts as they may deem advisable and necessary, and shall report such districts to the Commissioners for their approval, and shall require the medical officer of such district to attend at some convenient place within each such vaccination district, to be approved of by the said committee, at such times as the said committee may fix or approve; and the said medical officer shall, and he is hereby required to vaccinate all persons who may come to him for that purpose, subject to such regulations as may be issued by the Commissioners in that behalf.

2. The board of guardians shall pay to each such medical officer, subject to such regulations as aforesaid, for every case of successful vaccination performed by him, the sum of sixpence; and in case the board of guardians shall neglect or refuse to pay the amount which may at any time be due to such medical officer, under such regulations as aforesaid, the same shall be recoverable by the said medical officer by such and the same actions and proceedings as money lent.

DEATH OF SIR PHILIP CRAMPTON, BART.

June 10, at his residence, 14, Merrion-square, North, Sir Philip Crampton, Bart., *et. 81*, F.R.C.S.I., Surgeon to Steevens' Hospital and Co. Dublin Infirmary, Surgeon-General to the Forces in Ireland, Surgeon in Ordinary to the Queen in Ireland, Member of Senate of the London University, and of the Queen's University in Ireland, F.R.S., M.R.I.A., &c. &c. We copy from a morning paper the following brief notice of this highly distinguished surgeon:—

"It is with feelings of no ordinary regret that we record the death of Sir Philip Crampton. To those who knew that for several weeks he had been sinking under a wearisome and painful illness, this termination of his sufferings occasions no surprise; but to the many who remember only how a few months since he was still actively engaged in practice, his decease will be like the loss of a familiar friend of whose presence they had been suddenly deprived. Sir Philip had attained a ripe and vigorous old age, with but little appearance of that bodily decay by which it is ordinarily accompanied. His intellectual vigour he retained without impairment to the last. During more than half a century he had occupied the highest position in public estimation as a consulting as well as an operating surgeon, and never, we believe, had that general approbation been more deservedly bestowed. The baronetcy, which was bestowed on him in 1839, was but the embodiment of that high opinion of the Surgeon-General's professional merits which had long previously generally prevailed. At an early period of his life Sir Philip had entered the army surgical service, in which he subsequently attained the highest rank—a rank which alterations in the department abolished a few years ago, but which, in deference to its late possessor, he was permitted to retain as a merely nominal distinction without any emoluments of office. In 1804 he engaged in the teaching of anatomy and surgery as a private lecturer, unconnected with the privileged schools of the medical corporate bodies and the universities. By this enterprise he communicated an impulse of the greatest value and importance to the course of medical education in this city, and contributed in no inconsiderable degree

to that honourable rivalry among various independent lecturers which has so powerfully aided the student and enhanced the reputation of the Dublin schools of medicine. He is said, like the late Dr. Abraham Colles, to have been an unsuccessful candidate for the Professorship of Anatomy and Surgery in Trinity College. Mr. Crampton, by his skill as an operator, his profound knowledge of anatomy and physiology, as well comparative as human, and his prompt appreciation of all the symptoms of disease, to which he was always ready to apply the proper and most decisive treatment, soon acquired a reputation which was not bounded by the limits of his own country, but extended as far as the English language was understood or scientific surgery was valued. His practice was eminently successful both to those who consulted him and to himself. But he was not avaricious. He devoted much of his valuable time and his great talents to the gratuitous service of the poor. He was an attending surgeon of Doctor Steevens' Hospital and of the County Dublin Infirmary, as well as consultant to several charitable institutions. In lecturing at the hospitals, or before scientific assemblies, he was greatly admired; his perspicuity, his abundance of illustration, and his facility of communicating knowledge enabling him to engage the attention of the most various auditories. In private society and in fashionable circles he long occupied a prominent position. His manners were polished but unaffected, and his conversation charmed even Sir Walter Scott, who compared him in this respect, as well as in personal appearance, to Sir Humphrey Davy. Sir Philip Crampton dies full of years and of well-merited honours. Yet, although in the course of nature he could not have been expected to have remained much longer capable of medical practice, still we lament him as an irreparable loss."

DEATH.

ARCHIBALD ALEXANDER DUNCAN, M.D., H.E.L.C.S., on March 18th, at sea, on board the *Calcutta*, on his passage from Bombay.

APPOINTMENTS.

Mr. S. A. CUSACK has been appointed one of the Assistant-Surgeons to Steevens' Hospital, in the room of Dr. Harrison, deceased. Mr. Cusack's antecedents as an Army Assistant-Surgeon during the Crimean campaign, and subsequently House-Surgeon to Steevens' Hospital, and the great energy he has evinced in bringing the medical school which is attached to the hospital into such deserved repute, most fully entitle him to this honorable distinction.

We congratulate the governors of the hospital on having induced Mr. EDWARD HAMILTON to accept the appointment of House-Surgeon in the room of Mr. Cusack. We understand that the appointment of Surgeon, vacant by the death of Sir Philip Crampton, will not at present be filled up.

His Excellency has been pleased to appoint Dr. F. LEITCH to be State Surgeon-Dentist to His Excellency.

ROBERT H. MOORE, Esq., F.R.C.S.I., has been appointed Surgeon-Dentist to His Excellency.

His Excellency the Governor General of Jamaica has been pleased to appoint H. CROCKETT, Esq., L.R.C.S.I., formerly Assistant Surgeon in the Royal Navy, to be a Justice of the Peace for the Parish of Clarendon.

COMMUNICATIONS

Received from Professor Carlisle; Dr. Campbell. A "Senior Medical Student" will find the examination papers referred to in the present number; the remainder of his inquiry will be answered in next number.

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**CASE OF ASTHENIC PNEUMONIA;
RECOVERY;**

**SECOND ATTACK AFTER AN INTERVAL OF TWELVE
MONTHS; DEATH FROM FIBRINOUS DEPOSITION
IN THE HEART.**

By SAMUEL GORDON, M.B., F.R.C.S.I.,

Physician to the Whitworth and Hardwicke Hospitals;
Lecturer on Materia Medica in Steevens' Hospital School of Medicine.

The following case appears to me to possess many features of practical importance, and therefore to be deserving of record.

(Case noted by Mr. MURLOCK.)

Francis Woods, a porter, 25 years of age, was admitted into the Hardwicke Hospital, on the 25th of May, 1857. On the 21st he had an unusually severe day's work, and on the morning of the 22nd he got a rigor, which, from the frequency of its recurrence, may be said to have lasted, with intermissions, until about noon of the 24th. On the evening of the 22nd he had vomiting, and very severe pain in the right side. This vomiting frequently returned during the few days he was ill before his admission into hospital. On the 23rd he had short teasing cough, which still continues.

On the 25th his condition was as follows:—He complained of great weakness; his skin was cool, and a slight icteroid hue over the entire surface of the body rendered very distinct several spots of purpura hæmorrhagica. His tongue was moist and white; he had slight nausea but no vomiting; he had great thirst, and slight pain on pressure in both hypochondriac regions. He did not complain of any difficulty of breathing, but the respirations were 56 in the minute, and a strong inspiration was accompanied with pain in the right mammary region. The right side visibly acted less than the left. He had but slight cough, and no expectoration; his pulse was 112, and weak; bowels free; urine scanty and high-coloured. With such general symptoms the physical signs were as follows:—Extreme dulness on percussion

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over inferior two-thirds of right lung, with absence of respiratory murmur; peculiar resonance of voice over the same extensive region, approaching to ægophony, rather bronchophony; vesicular respiration at apex of lung; left lung healthy. Change of position made no difference as to the situation of the dulness.

The diagnosis lay between pleuritis with effusion and fibrinous pneumonia of the right lung. In a short treatise on this latter disease, published in the year 1853,* I stated that the test of position was the only positive means of diagnosis which I was aware of, between these two diseases. I can now add that we have, in the peculiar character of the voice, another very important means of diagnosis. In pleural effusion, if the fluid be in sufficient quantity to prevent any respiratory murmur being audible, it will also prevent vocal resonance. If bronchial breathing and bronchial voice exist with pleural effusion, they will be confined to the space where the compressed lung is lodged. In fibrinous pneumonia the general rule seems to be, that there is total absence of respiration. I do not state this solely from what existed in the present case.

Edward Griffith, a clerk, æt. 40, was admitted into the Hardwicke Hospital, with this disease, on the 24th of June, 1858. The physical signs were, diminished motion of the side, perfect dulness on percussion, absence of respiration, but increased ægophonic resonance of voice over the entire of the dull portion. The progress of the case has placed beyond doubt the correctness of the diagnosis. Our hospital case-books furnish also numerous additional cases.† In some cases, however, of the disease under consideration, some bronchial breathing does exist. These are more favourable cases, inasmuch as the fibrinous effusion does not engage so extensive a portion of the bronchial tree; the absence of bronchial breathing being caused by the obliteration of bronchial tubes of a

* See Dublin Quarterly Journal of Medicine, vol. xv. May, 1853.

† See also Dr. Peacock's and other cases in the Transactions of the Pathological Society of London.

certain size, and the want of motion in the side. This latter condition does not so much affect the phenomena of voice, which leans to the character of bronchial or ægophonic in proportion as the tubes are less or more engaged.

To return to the case of Woods. The jaundiced hue was considered to belong to the class of cachectic or spurious jaundice, and to have been caused by the impoverished condition of the blood, which had parted with so much of its fibrine as had solidified the right lung. The conjunctivæ were not affected. The alvine secretions were dark, and exhibited no deficiency of biliary matter, and the urine did not contain any bile. Similar was also considered to be the nature of the purpura hæmorrhagica.

The treatment adopted was the repeated adhibition of stimulating and fomenting applications to the right side; spongio-piline dipped in boiling water, and then well sprinkled with spirits of turpentine, and occasionally a few drops of caustic water of ammonia; and the internal exhibition of sulphate of quina, in five grain doses, every three hours.

I have now for some years habitually treated asthenic pneumonia with sulphate of quina, and can most confidently recommend it. In August, 1856,* I published some remarks on the subject; and if statistical tables be of any value, I have since treated in that way forty-three cases of pneumonia, in the Whitworth and Hardwicke Hospitals, of whom thirty-nine recovered.

26th.—Slept some hours last night. Pulse 132, very weak; respiration 60; right side scarcely moving. The dulness has spread upwards, and there is now bronchial breathing audible over the upper portion of the right side. Very little cough; no expectoration. *Continuantur medicamenta*; wine, eight ounces.

27th.—No sign of amendment, except that the pulse has come down to 120, and the nausea has ceased.

28th.—Face anxious, and expressive of pain; some cough, with slight expectoration; pulse 100; respiration 56.

29th.—Slept badly; skin hot; pulse 110; respiration 44; has some cough, with increased expectoration; it is white, with slight tinge of blood.

The physical phenomena, as stated in the report of the 26th, remained unaltered on the 27th and 28th.

This day there is some bronchial breathing audible over the inferior portion of the right lung. No change in the treatment.

30th.—Expectoration very much increased; it was carefully examined, the spittoon being emptied into a vessel of water. It consists of small cylindrical fragments floating in serum. Many of these can be spread out, and show a bifurcated appearance, being clearly casts of small bronchial tubes.

Many of them are tinged with blood. The cough which brings them up comes on in paroxysms. He complains of being much weaker. His pulse have again fallen to 100, respiration to 44. Albumen is perceptible in the urine in considerable quantity. Icteric hue much diminished. Extreme dulness still well marked. Bronchial breathing now audible over all the lung, with crepitation at the inferior portion. Wine 3xii. *Continuantur cætera*.

From this time the general symptoms rapidly improved. On the 1st of June his pulse had fallen to 88; the respiration to 36; the skin was cool, his tongue moist and clean.

On the 2nd the pulse was 80; respiration 28; he was perspiring freely; the urine still contained albumen; the expectoration was greatly increased in quantity—came up very freely. Crepitation was audible over the entire of the lung.

June 3rd.—Complains of pain in his right arm, in front, near the elbow-joint. The pulse at the right wrist was very perceptibly feebler than the left. This phenomenon continued for a few days, until the 7th, and then gradually wore off.

His strength daily increased. On the 8th his pulse had fallen to 56. The quina was omitted, and he was ordered an expectorant mixture and good diet. He considered himself convalescent, and on the 10th required his discharge. The following was the condition of the lung on that day:—The right side moved equally with the left, but it was comparatively dull over the lower half, particularly posteriorly. There was healthy vesicular respiration at the apex; crepitation inferiorly, with slight bronchial breathing. He was still expectorating, in considerable quantity, the same kind of matter. He was told that his lung was diseased; was ordered to use a counter-irritating liniment over the chest, and to take bark with hydriodate of potass.

I did not see him again until the 11th of May, 1858. He was admitted on the previous evening into the Hardwicke Hospital, with a somewhat similar attack. [*The case was now noted by Mr. Kirwan.*] He reports himself as being eight days ill; so weak that he can scarcely speak; lies on his back; yellow tinge over all the surface of the body, and bright purple flush on each cheek; respiration noisy, hurried, and short—52 in the minute; *alæ nasi* widely dilated; respiration is carried on almost entirely by the diaphragm, the thorax moving but little, and the right side being almost motionless. Cough short and occasional; expectoration scanty, viscid, of a yellowish-black colour, but his weakness is such that he can with the utmost difficulty get it up. He states that he has not slept nor eaten anything for the last eight days. His bowels have been confined for the same time. He can only speak in whispers, and lies in a half-comatose state. The heart's action is very rapid, its impulse and sounds scarcely perceptible; pulse 128, extremely weak and compressible; tongue very dry and brown; sordes on teeth.

* See Dublin Quarterly Jour. of Med., Aug., 1858.

Bronchitic râles can be felt and heard over all anterior portion of chest. Both sides of chest are dull on percussion posteriorly, the right much more so. There is no respiratory murmur audible over the right side, but distinct vocal resonance. Loud bronchial breathing, with crepitation, is audible over the base of the left lung. The case was clearly double pneumonia and bronchitis. It was presumed, also, that the pathological character of the pneumonic attack was similar to the former, but that, in the left lung at all events, there was not so much of the bronchial tubes obliterated. He was ordered ten grains of sulphate of quina every third hour, and ten ounces of whiskey; spirits of turpentine and hartshorn as an embrocation to the chest.

12th.—Slept a little last night, and feels something better. Tongue very dry and brown, and shrivelled—protruded only with difficulty; sordes on teeth; lips dry and parched, yet he drinks a great deal to-day; bowels have been moved; urine very scanty; slight deafness; pulse 110.

13th.—Tongue broader, moist at the edges; pulse 104, fuller; breathing less noisy, 52. Slept well; deafness not increased; no noise in the head, or headache; bronchitic râles not so intense; other physical signs unaltered. Sulphate of quina, five grains every third hour; wine and arrowroot.

14th.—Looks much improved, and feels greatly better; is able to turn from side to side; is beginning to pass water freely, and to take sufficient nourishment; has hitherto swallowed the expectoration, being too weak to cough it up; its characters are very distinct, being exactly similar to what existed in the former attack.

15th.—Yellow tinge of skin fading off; great sense of debility; pulse 88; tongue moist and clean; respiration 50; appetite good. The bronchitic râles have disappeared altogether; the left side of the chest is clear on percussion; bronchial breathing has gone, but crepitation is audible over all the inferior portion of the lung. In the right lung well-marked bronchial breathing exists over all the inferior portion, with crepitation which is audible both in inspiration and expiration. The motion of the right side is increased, but it is still less than that of the left.

I may now pass over the minute details of several successive days; they show that the constitutional symptoms were steadily improving. He was able to sit up in bed, and to use a moderate allowance of animal food. The quinine had been discontinued, his pulse having come down to 60; and he was taking five-grain doses of hydriodate of potass. The left lung had apparently returned to a state of health; the right was still solid, but air entered a certain portion of the vesicular structure, for the loud tubular breathing was audible over all the posterior portion of the right side; it was mixed with a certain amount of crepitation, which was audible both in inspiration and expiration. The expectoration was free and abundant, and contained

a great deal of the membranaceous matter. His skin had become soft, and he occasionally perspired a little; his bowels now regularly moved, and the urine was abundant.

Early on the morning of the 25th he was seized, quite suddenly, with the following alarming symptoms:—General coldness of the surface, but without any rigor, or tendency to it; great and sudden pallor of his face and all his body; and most profuse general perspiration. I saw him in a few hours after this; his face was very pale, and wore a most anxious expression; he did not complain of any pain, but extreme oppression of his chest. His breathing was very hurried and irregular, and at least 60 in the minute; his pulse, also irregular, and very small, was counted to 130. A very careful examination of the chest could not detect any addition to, or alteration in, the pulmonary affection as it existed on the previous day. The heart's sounds were very obscure—the second sound was almost inaudible; there was no exo- or endo-cardial murmur; there was some pain, and much increased sense of oppression on pressing upwards at the epigastrium.

The diagnosis lay between effusion into the pericardium and the formation of a clot in the left ventricle of the heart. The absence of orthopnoea and of extensive dulness in the præcordial region, induced me to decide on the latter, and that diagnosis was recorded.

In the debilitated condition to which this man was reduced, I did not expect that medical treatment would much avail. We endeavoured to restore warmth to the surface; applied counter-irritation sedulously over the heart; increased the quantity of wine which he was taking; and ordered him a mixture containing diffusible stimulants, with some of the salts of potash in large quantity.

May 26th.—Does not feel so weak; surface of body not so cold; breathing not so hurried; complains of incessant short teasing cough; perspiration continues, but not so profuse; pulse 120, very feeble; takes sixteen ounces of wine, and any food which is offered to him. The physical signs as to the heart have undergone no alteration since yesterday. The lungs give evidence of increased solidification.

27th.—Passed a restless, sleepless night, and seems quite exhausted to-day. His pulse is almost imperceptible; the sounds of the heart cannot be distinguished, its action is so rapid and so feeble; still his appetite is good, and he asks for food and wine. He speaks loudly and strongly; complains constantly of a "sinking" about his heart. He lived until five o'clock, a.m., of the 28th, when he died rather suddenly, 72 hours from the accession of the more recent attack, which proved fatal.

The *post-mortem* examination showed the pericardium to be in a perfectly normal condition. The valvular apparatus was healthy. The left ventricle contained a large tough firm clot of mem-

branaceous matter; it was intimately adherent to the lining membrane of the endocardium, particularly towards the apex of the ventricle it rapidly assumed a rounded form, and passed through the aortic valve, for a short distance into the aorta, filling about one-third of its calibre; numerous small vessels were distinctly seen passing into it, and repeated washings failed to remove the pinkish vascular appearance which they imparted to it.

The clot in the right ventricle was of the usual soft gelatiniform appearance of those found under similar circumstances. The right lung felt very solid, tough, and resisting, it was not very friable, was torn with difficulty, and when torn did not give exit to much purulent or muco-purulent matter, but rather serous fluid, with an admixture of lymph exudation. On closely examining this lung it was quite clear that the morbid appearances were divisible into two parts: 1st, those which were due to the pneumonic attack, for which he had been treated a year previously; and 2nd, those which were superadded by the recent illness; and in this order I shall endeavour to describe them. This man had never been treated for any thoracic affection previous to May, 1857; we are therefore warranted in referring to this period whatever evidences of disease existed in the right lung, and which could not be fairly attributed to the more recent attack. The right lung, although known to be the one more solidified during life, now seemed somewhat smaller than the left. This diminution in size was owing to the edges of the lung having been rounded off, and a considerable portion of the vesicles obliterated, the pulmonary structure being permanently thickened. Sections of the lung examined with a powerful magnifier show the thickened cellular tissue in many places, completely displacing the air vesicles, the interlobular septa apparently greatly increased, but of irregular width, the lobules not preserving any defined shape or size, and several of them apparently coalescing. This was, evidently, an early stage of cirrhosis, but it does not appear to have advanced to any degree of dilatation of the bronchial tubes.

Several of these being examined, are found to cease abruptly, but without undergoing any dilatation.

Such were the appearances in a lung twelve months after it had suffered from a plastic pneumonia. The pathologist will probably find in them confirmation as to the origin of this form of disease in the cellular tissue of the lung, and its subsequently engaging the vesicular structure, rather than *vice versa*, as is supposed by perhaps nearly an equal number. To me they were of very great interest, as explanatory of a fact which I had long found it difficult to understand, viz., that in very many cases of pneumonia, while all the general symptoms will yield to treatment, and the patient consider himself convalescent, the evidences of a certain amount of solidification of the lung will still continue. I could adduce many

cases where this fact has been demonstrated to a large class of students and others, but will now only allude to one. Mary Anne Ford, æt. 8, was admitted into the Hardwicke Hospital with pneumonic solidification of the base of the left lung on June 14th, 1858. Both the general symptoms and the physical signs were very characteristic of the disease. On the 20th she was convalescent, her pulse 72, her tongue clear, her appetite good; except debility no symptom of illness remains; but comparative dulness on percussion, a certain amount of tubular breathing, and increased vocal resonance, prove that the air vesicles of the lung cannot yet be expanded.

Under these circumstances it is worthy of consideration, whether the administration of mercury is not necessary or advisable for the perfect recovery of the majority of these cases; perhaps the long-continued local application of it, combined with iodine, might be sufficient. I am satisfied, from experience, that neither iodine nor the salts of potash have any beneficial action in such cases. I have repeatedly administered them, and in full doses, without any satisfactory result.

The morbid appearances which the *recent* attack of pneumonia left, have been already alluded to; they consisted in a thick lymph exudation into the unobliterated connective tissue and air vesicles of the lung, and into several bronchial tubes; it was not difficult to remove it from these latter, which then appeared of nearly natural colour. There seemed to be in the right lung but little tendency to suppurative action; there had been, however, some morbid action of this nature in the left lung, for a small abscess was found near the root of the lung, about the size of a hazel-nut, and some solidification of the lung near it. The solidification appeared to arise from the same cause as it did in the right lung.

It only remains to inquire, for I believe we had no means of proving, whether the cardiac affection had any relation to the pulmonic, or was merely coincident.

I believe it to have been constitutional, that is, developed by the same cause which produced the same disease in the lungs; and I imagine that the very brief attack of pain in the arm, which occurred in his first illness, and which fortunately passed off so favourably, was of the same nature—caused by a portion of fibrine, which, having had its origin in the heart, was thence propelled, but arrested in the brachial artery at the seat of pain.

THE GILBERT BLANE PRIZE.—The Council of the Royal College of Surgeons and Sir John Liddell, the Director-General of the Medical Department of the Royal Navy, have just awarded the gold medals founded by the late Sir Gilbert Blane, Bart., to Messrs. William Richard Edwin Smart, M.D., Surgeon to H.M.S. Diamond (1855), and Alexander Eugene Mackay, M.D., Surgeon to H.M.S. Fantome (1855).

A CASE OF
ALBUMINURIA PERMANENTLY CURED
BY IRON;

WITH REMARKS.

By Dr. CATHCART LEES,

Physician to the Meath Hospital; Lecturer on Practice
of Physic, &c.

In the *Dublin Quarterly Journal of Medical Science* for August, 1852, I published a communication on the "Treatment of Albuminuria by Iron," in which I recorded some cases illustrative of the efficacy of this medicine, especially in the early stages of the disease, and tending to support an opinion I advanced, that the beneficial effects of iron in such cases were not to be attributed solely to its imparting red corpuscles to the blood, but that it acted rather as a remedy or antidote to the commencing deteriorated condition of the liquor sanguinis, which interfered with the development of the red corpuscles, and thus constituted the very essence of the disease. One of these cases has been lately re-admitted to the Meath Hospital (after an interval of nine years), for another complaint, and furnishes so strong a proof of the *persistent* efficacy of the treatment by iron, that I think it is well worth recording in the *Dublin Hospital Gazette*.

Patrick Smith, aged 40, a coachman, of temperate habits, was admitted, under my care, into the Meath Hospital (February, 1849), for general dropsy. He had been attacked, the night previously, with convulsions, stated, by a medical man who had seen him, to be of an epileptiform character; but on admission he was gradually recovering from a state of stupor, and could answer questions. His face was remarkably pale and ghastly; his body, and both upper and lower extremities, very anasarctous; skin dry; tongue red; pulse 76, regular; great difficulty of breathing, with muco-purulent expectoration, and râles over the entire of both lungs. He complained of pain across the loins, and also of frequent sense of vertigo. The urine was passed in natural quantity, feebly acid, of a dark-brown appearance; specific gravity, 1.010; highly albuminous with heat and nitric acid; very deficient in urea. The sediment, under the microscope, consisted of blood-discs, renal epithelium, and casts of the tubes, both entire and broken up. He had been taking mercury for the dropsy, and was under its influence when admitted. I learned that he had enjoyed good health until three years ago, when he was treated for disease of the liver, and cured. He remained well up to eight weeks since, when, after exposure to wet, he was attacked with diarrhoea; and, on its subsiding, his feet and legs began to swell. In a few days his body and face became dropsical, with very scanty and high-coloured urine. The heart was acting strongly, but there was no sign of valvular disease. I considered this a case of sub-acute con-

gestive desquamation of the uriferous tubes, with the secondary head affection, so often met with in the disease; I therefore ordered him to be dry-cupped over the loins, and, as the bowels were confined, to take half a drachm of compound powder of jalap and an eighth of a grain of elaterium. This caused gentle watery evacuations from the bowels. I allowed him sago, with a small quantity of wine; and then, even though he had general bronchitis, I gave him ten grains of the ammonio-tartrate of iron three times a day. This was followed by the happiest results: his breathing improved; he had no return of convulsions, nor vertigo. I then gave him a vapour-bath twice a week, clothed him in flannel, and kept him on the constant use of the iron for three months, with an occasional purge of the compound jalap powder. The anasarca disappeared entirely; the urine became perfectly clear; the specific gravity rose to 1.015; and though a trace of albumen could still be detected, and an occasional sediment of epithelium, with one or two casts of the tubes, yet the man, considering himself cured, left the hospital, and was seen by one of our students working as a railway labourer, and apparently enjoying good health.

He was re-admitted on April 19th, 1858 (*i.e.*, nine years after), in a state of great anæmia from loss of blood by the rectum, caused by vascular tumors in that part; but he had not any dropsy, and stated that he had continued free from it, and able to perform his daily work, till a short time previous to his admission, when the great bleeding from the rectum forced him to desist. I was naturally anxious to have his urine carefully analysed, though it appeared perfectly normal and was free from any deposit; no epithelium, or even a tube-cast, being visible under the microscope, but its specific gravity was lower than normal, being only 1.012. This was kindly performed by Professor Sullivan, who found, to my great satisfaction, that it was quite free from albumen, and otherwise perfectly normal, except being somewhat deficient in urea, which accounted for the low specific gravity.

I considered this case worth recording at the time, as showing the good effects of the treatment by iron in so early a stage of the disease, even though the condition of the urine and the pain in the back indicated congestion of the kidneys, and when, also, the case presented the symptoms and physical signs of acute congestive bronchitis, with profuse muco-purulent expectoration, but I now regard it of especial value, as proving the *permanent* good effect of this medicine in a class of diseases, which are considered by many persons as almost incurable. An important feature in the early history of the case was the fact of convulsions coming on while the patient was under the influence of mercury, which tends to confirm me in the opinion I have long entertained from what I have observed in similar cases, and which I find

corroborated by Drs. Bright and Barlow, of Guy's Hospital, in their last report on the subject, in which they state that "mercury is not only an inefficient, but in all probability a dangerous remedy in those cases in which the renal disease was the primary and principal effection."* But though I protest against the general use of mercury in this disease, yet we may use it occasionally as a purgative in combination with other medicines, or even as a diuretic if the dropsical effusion be excessive, and we have failed to give relief by other medicines.

Steevens' Hospital.

CLINICAL REPORTS OF SURGICAL CASES.

By SAMUEL A. CUSACK, F.R.C.S., M.R.I.A.,

Lecturer on Physiology, and Surgeon to Steevens' Hospital.

Case of Medullary Cancer of the Lung, simulating Hydrothorax.

Robert Lacy, aged 26, was admitted into the Primate's Ward on the 6th of February, 1858, suffering from dyspnoea and pain in the chest, which he attributed to a tumor on the right side of the thorax.

He says that he had always been a healthy man, and free from any pulmonary complaint, until six weeks ago, when, after exposure to wet and cold, while on duty as a policeman, he was attacked with a bad cough, and subsequently with hæmoptysis and difficult breathing, which, at the end of three weeks, became so bad that he was unfit for duty, and was sent to Dublin for hospital treatment.

On examining him after admission it was found that he had a prominence on the left side of the sternum, which presented very much the appearance of the projection caused by a thoracic aneurism which had pushed out the sternal ends of the third, fourth, and fifth ribs. It was, however, free from pulsation, and he stated that it was congenital, though more probably it was of recent growth, and being at first free from pain, had not attracted his attention until it had attained its present size.

On percussing the tumor it was found to be dull, as was also the greater part of the chest on that side. There was an absence of the respiratory murmur in front, and the respiration posteriorly was of a bronchial character; over the right lung respiration was healthy, and rather puerile.

The impulse and sounds of the heart are much obscured by the tumor, and a systolic murmur can be heard over the course of the aorta on both aspects of the thorax; his pulse is 80, soft and

very compressible; his tongue is clean; he expectorates small quantities of frothy viscid matter, tinged with blood; he perspires at night occasionally. During the first fortnight after his coming into hospital he had occasional fits of dyspnoea, but otherwise the disease did not appear to make much progress; and in the absence of any certain indication as to what was its precise nature, no particular line of treatment was adopted except occasional opiates at night, when he was restless and complained of pain.

On the 20th of February he expectorated some blood, and it was observed that the dulness and absence of respiration had increased over the left lung, the root and apex now alone remaining resonant; the heart also began to be displaced towards the median line. At this stage of the disease the symptoms began to resemble those of pleuritic effusion, excepting that no alteration was made in the auscultatory sounds by change of posture. From this period the disease became steadily worse, as evinced by the dislocation of the heart towards the right nipple, which it finally reached, and the universal dulness of the affected lung. On the 1st of March the left side was sensibly increased in size, and the difficulty of respiration compelled him to assume the diagonal posture; he was now getting very feeble, and could not sit up in the bed without support.

During the next fortnight the diseased side became so much enlarged that the original tumor had disappeared; the soft parts became very oedematous, and the intercostal spaces rather pushed out.

On the 18th his countenance became very anxious, and his breathing so difficult that it was evident he could not live many hours. A consultation of the physicians and surgeons of the hospital was accordingly held, when it was decided that if any fluid could be obtained by exploration, paracentesis should be performed. A very small canula attached to a glass syringe (belonging to Dr. Hutton, who was present) was introduced in the usual manner, in the fourth intercostal space, and the contents of the syringe, (about a drachm) of sero-sanguineous fluid obtained; a larger canula was next introduced through the same aperture, from which half a pint of the same fluid was slowly drawn, after which it ceased to flow, and no more could be obtained. The withdrawal of this small quantity of fluid did not afford him any sensible relief, and he died at 11, p.m. The fluid, when examined under the microscope, did not exhibit any distinctive characters excepting a few blood corpuscles, probably derived from the wound made in introducing the trocar.

Post-mortem Examination.—The heart and mediastinum pushed very much to the right of the median line. The whole of the lung replaced by a brain-like mass of cancer, which had completely obliterated the pleural cavity, excepting just opposite the fourth, fifth, and sixth ribs, where a small

* Guy's Hospital Reports, Second Series, No. 1. p. 257.

serous cavity remained into which the trochar had been passed. Posteriorly the mass had become soft in a few spots, and communicated with the primary divisions of the bronchial tube, which were yet pervious.

The aorta, more particularly its ascending portion, had been so much pressed on by the tumor, that the little finger could scarcely be passed into it from the left ventricle. There was not any particular tumor corresponding to the prominence of the ribs which had at first existed, and it could not be satisfactorily ascertained whether the disease had originated in the texture of the lung itself, or on the pleural surface, from the manner in which it had extended from before backwards, and the absence of any friction sound in the early period of the disease. The material of the cancerous mass was of the usual brain-like consistence, and presented well marked cancer cells under the microscope. It was exceedingly soft and friable, so much so, as to prevent it being removed *en masse* for more minute examination.

I have detailed the above case at such great length, that there is but little to add in the way of observation. It is interesting chiefly from the great difficulty which existed in forming a correct diagnosis. In the early stage, the symptoms were such as to lead every one who examined him to the conclusion, that aneurism or disease of the heart existed; subsequently the symptoms of thoracic effusion were equally strong, the murmur along the aorta being attributed to the alteration in its curvature, which exists when dislocation of the heart towards the right side have taken place. The fact of the trochar having been introduced at the only portion of the pleural cavity which remained unobliterated, of course added much to the deception. I have observed a somewhat similar case mentioned in Watson's Practice of Medicine, caused by coagulation of blood in the pleura, in which, as here, the true nature of the disease was not ascertained until after death.

Dr. ANDREW SMITH has resigned his appointment as Director-General of the Medical Department of the Army; and as failing health was the reason he assigned for wishing to retire, the Government were bound to accept the resignation. Dr. Smith has remained at his post until the last sheets of the medical history of the late war have passed through the press, and documents have been arranged for the information of his successors which will serve as most useful guides in any future war. A hard-working, clear-headed, thoroughly honest, and kind-hearted man, he retires from the service, with the best wishes of all that he may enjoy the leisure he has so well earned, and with the esteem and regard of all who know him—greatest of those who know him best. He is to be succeeded by Dr. Alexander, who won his spurs as principal medical officer of the light division in the Crimea. It has not yet been decided how far the recommendation of the Sanitary Commission, as to a Board of Officers to assist the Director-General, will be adopted.—*Medical Times and Gazette*.

Proceedings of Societies.

THE HUNTERIAN SOCIETY.

Dr. LITTLE, President, in the Chair.

The last meeting of this Society was held on the 19th ult., in the rooms adjoining Finsbury-square.

Mr. JONATHAN HUTCHINSON exhibited the recent preparation in a very interesting and remarkable case of *Ovariectomy*, in which he had operated with success. The patient was a young lady, aged 23, who had the tumor of the ovary for eighteen months. It seemed that she came up to town six months previously—being then as large as if gone with child nine months—and had it tapped by a small trochar. This diminished the bulk of the abdomen very little. As it was then also thought to be multilocular, the use of iodine was not thought to be advisable. Mr. Baker Brown next saw the case, and his advice was taken as to the propriety of ovariectomy. He was decided as to the absence of adhesions, both as to the necessity of a very large and pre-incision, as the cyst was multilocular and the fluid viscid. A plan of tapping, with India-rubber bags to receive the fluid, was not found of any value, and various other devices were then all set aside for the operation of ovariectomy. Some very interesting particulars were next referred to by Mr. Hutchinson, showing the various “appliances, and means to boot,” of modern surgery. A large incision was made from sternum to pubes, the patient having previously got a full dose of two grains of opium, and some wine, before she was placed under the influence of chloroform. Dr. Snow has objected to wine, as it is not absorbed while chloroform anæsthesia exists; but in this case it preserved the patient with a firm pulse all through the operation for an hour. The ligature of the pedicle was well secured by *silver ligatures*, as they prevent irritation in the peritoneal cavity. The patient, fortunately, had no sickness of stomach from the chloroform; but on the third day after the operation some sickness set in, which was controlled by bits of ice and effervescing mixtures; a grain of calomel was also given every two hours for fourteen doses. A very great point is, to get the remains of the pedicle out of the abdomen, and thus prevent suppurative inflammation in that cavity.

Mr. JOHN ADAMS (London Hospital) asked if the pedicle with the silver sutures was left in the abdominal cavity loose *in situ* or externally in the wound.

Mr. HUTCHINSON—In the wound. There were five deep sutures.

Mr. SOLLY spoke of a case of his, “published in the journals,” where the patient died in eight hours, of hæmorrhage. The ligatures, which were of whipcord, slipped off the pedicle. He thought it right his pupils should publish bad cases as well

as good ones, and that hospital reporters for journals should take both sides of the question:—statistics, after all, must decide everything.

Dr. LEVER, from an experience of hundreds of these cases, thought that a great deal depended also on a good diagnosis of what is almost incurable as a multilocular cyst, and what may be cured by iodine. In the single cyst, the fluid rushes up, as in tapping for ascites—it froths up, or “beads”; iodine will do good there; but if a discoloured thing, like jelly or size, flows out, the surgeon must give a guarded prognosis.* Chemistry might do us a good turn, by telling, where we have cholesterine, as in some of these cysts, or colouring matter, what these indicate, or how they differ from the fluid of ascites. “I believe ovarian dropsy a hereditary disease,” said Dr. Lever. “My lamented friend, Aston Key, did the operation once on a most beautiful girl. Nine young women of that family, almost in succession, had the disease. I have known it at the age of nineteen! and the worst forms are, perhaps, those cases under thirty; they nearly all go on badly. I have a case now under my care operated on six times. I find a good plan is that which I sometimes adopt—to remove only a portion (say one-third) of the fluid at a time. The case of Mr. Hutchinson is a great credit to him, but I have my strong impressions in favour of the temporising plans. But there is Mr. Walne present, who can tell us so much on the statistics of the disease.”

Mr. WALNE—Ten years since, I published the results of all the ovariectomy cases of Europe and America. I am often asked for my statistics, but I am obliged to refuse them—I have been so misrepresented, if not traduced. Statistics cannot rule our practice. If we take the early statistics adopted by some controversialists, notwithstanding such cases as this before the Society, “though convinced against their will,” such old practitioners adhere to their opinions, and adopt the old practice still. Statistics in ovariectomy are liable to mistaken conclusions also, from the variety of amateur “hands,” so to speak, who have worked them up, or who have operated! Who could judge of hernia operations, as now done, under chloroform and opium, every hour in the day, in London hospitals; with hernia operations, with purgatives, in the times of Astley Cooper, or even later, under Mr. Luke or Mr. Lawrence? Why, I told Mr. Lawrence, at the College, our statistical people in ovariectomy might as well compare hernia operations, with purgatives and opening of the sac, with hernia operations under opium and subcutaneous surgery, as give us their “doctored” statistics on ovariectomy, which not long ago so excited and misguided the profession.

Dr. BARNES said he was “brought up in a great

* We have observed this at several other hospitals, as well as Guy's. It suggests caution also, as we have known two deaths from the iodine having been thrown into the cavity of the peritoneum!

statistical school, the Gamaliels of which, however, had lately led him to coincide with Dr. Lever, that all the best knowledge must be based on individual facts or cases: figures alone will not do.” Napoleon could prove anything by figures; still, as Mr. Paget had done for cancer, he thought we might compare the amount of “additional life” got out of the simple tapping cases and ovariectomy cases respectively.

Mr. J. ADAMS said Mr. Paget's figures had got all changed. A revolution is going on in all our hospital ideas of operations of every sort. If you save one case of ovarian disease or cancer by operation, you do good. As to statistics, he believes that fully fifty per cent. of Mr. Walne's mass of cases were unfit for the operation of ovariectomy; in ten per cent. the surgeon had to stop after he had cut into the peritoneal cavity!—that accounted for two-thirds of the statistics! Mr. Adams cited a case of immense multilocular cyst, recently under his care. The lady was fifty years of age. He expressed a doubt as to its being a cyst with thin fluid. The thing progressed; the poor lady died; and there was an enormous multilocular cyst so glued to the parts around, that even after death they were unable to remove it. The excellent case before the Society was, on the other hand, well adapted for operation; the pedicle was not large, and, as it seemed to him, peritonitis was “shut off” completely by the silver ligatures. In the case by Mr. Solly, the plan of leaving the whipcord ligature in the abdomen, as so often done, is very faulty. The present case, as done with all the latest improvements in chloroform, &c., he had no hesitation in saying, as regarded Mr. Hutchinson, reflected the greatest credit on British surgery!

Dr. BARNES, referring again to statistics, and the adhesions existing in Mr. Adams's case, said statistics were favourable to adhesions, as lessening the danger of peritoneal inflammation. Thus Dr. Clay, of Manchester, in the *Midland Medical Journal*, says he has removed some tons of ovarian cysts, but he rather likes adhesions. This is opposed to ideas held in London!

Mr. WALNE thought it all a matter of observation in hospitals—if any faithful records of London hospitals, and not “made-up” cases, could be got at in journals. Adhesions, however, bleed; and this bleeding sets up peritonitis. This is a matter of life or death to the patient. Dr. Blundell and Dr. Simpson, he was sorry to find, gave countenance to an absurd idea, that ovariectomy ought not to be performed, except as a last resource. Some operators were only “writers,” and not experienced men; their errors frightened good men. But what would be said to the man who could recommend, by his pen alone, strangulated hernia never to be operated on till stercoraceous vomiting and peritoneal tenderness had existed for several days, and then build up a great school of statistics on such absurd facts and “clinical records?” Yet this had been done.

Dr. COOK wished to know the experience of such men as Dr. Waller, Dr. Ramsbotham, or Dr. Lever, as to the possibility of ovarian dropsy disappearing, and getting cured spontaneously, agreeing with others by those authors.

Dr. LEVER regretted that he did not know the discussion would be on this subject. He had a hundred curious cases drawn up by his pupils at Guy's, full of instruction as to spontaneous cure, as well as to "adhesion," and the proper time for operating by ovariectomy; but he had not brought them or looked at them. He could call to mind cases, however, of spontaneous cure; the cyst breaking into the bowel, and doing well—also into the vagina and rectum. The average duration of life after operations for ovariectomy, even with chloroform and improved ligatures, is three and a half to four years. Dr. Lever defended the proper use of statistics in ovariectomy, and in surgery generally. If ignorant amateurs abused their use in journals, good men should not do the same. Where the fluid, at tapping, is "treacly," he feared iodine would not answer; then ovariectomy should be proposed.

Mr. WALNE said he found large quantities of sulphur in such discharge; it will darken silver instruments almost immediately.

[Some of the Fellows spoke of large deposits of cholesterine as often present; and even in the same patient a different kind of fluid in each of the various cysts according to their age; also, of the disappearance of all fluid in such cysts occasionally in pregnancy, which may co-exist with this form of dropsy.]

Mr. HUTCHINSON then thanked the Society for the kindness it had shewn to his communication. The lady is now quite well, and about; he was very much inclined to lay great stress on the administration of opium and wine previous to the anaesthesia of chloroform. The silver ligatures are also very valuable, as, in a case by Dr. Tanner, as in that by Mr. Solly, the pedicle was not transfixed, so it got loosened; but this transfexion is easily secured by silver ligatures. The statistical points he was not prepared for, but the case was, he thought, in every way a fair specimen of the result of what some of the best men in London had suggested and advised to be done in similar cases.

The Society then adjourned.—*Med. Circular.*

ASSOCIATION OF THE FELLOWS AND LICENTIATES OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

June 2, 1858.

Dr. AQUILLA SMITH (V.P. Coll. Phys.) in the chair.

Dr. M'CLINTOCK exhibited a large

Uterine Polypus,

which he removed from a woman aged 46 years. Till within the last month it had given rise to no

constitutional disturbance, when retention of urine set in. Some years ago the patient had suffered from menorrhagia. The tumor was removed by ligature, about six hours after the application of which copious hæmorrhage ensued. In about forty-eight hours the tumor was brought away with some force. Dr. M'Clintock considered the hæmorrhage occurring some hours after the application of the ligature an unusual feature in this case. The polypus weighed thirty-three ounces.

Dr. MOORE made some remarks on a case of

Double Empyema, with Deziocardia and displacement of the Sternum,

which occurred in a boy aged six years. Both sides were bulged out, but the left side in particular, which measured nearly an inch more than the right. Over the left side the action of the heart was inaudible, but on the right side, anteriorly, both its sounds were distinct and healthy. Posteriorly over the base of both lungs, an indistinct crepitus, on inspiration and expiration, was audible. Respiration 48 in the minute; pulse, 120; cough troublesome. The treatment consisted in the application of a small blister over the base of the left lung; afterwards the application of a strong tincture of iodine over both lungs posteriorly. The patient to take a cough-mixture containing squill, camphorated tincture of opium, and Hoffman's Anodyne; and a desert-spoonful of cod-liver oil three times a day, with a generous regimen. Under this treatment the boy's amendment has been gradual, but decided. Dr. Moore considered the crepitus in this case was due to the entrance of air into the portions of the lung, which was being gradually relieved from submersion (so to speak) in the pleuritic effusion, as absorption progressed.

Dr. MURKIN brought before the Association an *Atrophied Kidney* (the left), which he had removed from the body of a middle-aged gentleman who, during life, presented the bronzed appearance recently described in connection with disease of the renal capsules. The right kidney was hypertrophied; its cortical substance congested and frangible; its capsule fibrous and compact. No capsule could be found in connection with the left kidney. The patient, who had been languid for some months, died comatose. On one occasion only a trace of albumen was found in the urine.

Dr. LEES gave the details of a case of

Acute Pneumonia,

which occurred in a young girl. The upper lobe of the left lung was hepatized; the treatment employed was mercury and blistering. Everything seemed going on favourably, and resolution was established, when the patient complained of slight headache; unconsciousness ensued, and in the course of a few hours she died.

Selections from British & Foreign Journals.

DROPPING A SOLUTION OF CHLORATE OF SODA INTO THE TRACHEA, TO ASSIST IN THE TREATMENT OF CROUP, AFTER TRACHEOTOMY HAD BEEN PERFORMED.

In the last Number we published an interesting communication on the removal of false membranes from the air-passages, and the effect of a solution of chlorate of soda dropped into the trachea, after operation for croup, in attaining this desirable object.

Some observations made by several of his colleagues, and some new facts which he has since discovered, have induced M. Barthez to resume the subject—in the present communication insisting more particularly on the indications for this plan of treatment.

1.—*Action of the Solutions of Chlorate of Soda and Chlorate of Potash on False Membranes extracted from the air-passages.*—In order to show the solvent action of the two chlorates, and the more rapid action of the soda, M. Barthez exhibited to the Society tubes containing these solutions, and false membrane introduced into them. These false membranes had been extracted the day before from the trachea and bronchi of a child who had died of croup. In one tube the membrane was placed in contact with pure water. In twenty-four hours no appreciable change had taken place in the appearance of the fibrinous tissue. Two other tubes contained the membrane in contact, for twenty-four hours, with concentrated solutions of the two salts. The dissolution was the same in the two tubes: all membranaceous appearance had disappeared, and the tissue had become diffuent and semi-transparent.

Two other tubes contained false membranes which had been for eighteen hours in the same solutions. The solvent action had been the same, but at the end of twelve or fourteen hours the membranaceous form existed in the tube containing the solution of chlorate of potass, while this form had disappeared in the other tube. And lastly, after the false membranes had remained for eight hours in these solutions, the tissue was not altered in the solution of chlorate of potass, whilst that in the solution of chlorate of soda was completely diffuent; and this change was complete after it had remained three and a-half hours in contact with the salt. M. Barthez does not insist on this as the length of time sufficient to produce solution of false membrane; the time must vary according to the thickness, density, and composition of the substance secreted, and according to other unknown circumstances.

2.—*Effect produced by Chlorate of Soda on false membranes still retained in the trachea.*—In dropping a solution of chlorate of soda into the

trachea, M. Barthez states—"My only object is, to obtain a solution of the false membranes, in the same way in which that occurs in the tubes as just exhibited. I expect only to soften the adherent surface sufficiently to allow of the membrane becoming more easily detached by the fits of coughing, and so being expelled. The following facts make me think that this object may be sometimes obtained.

"In one patient, a portion of false membrane, which was adherent, and causing suffocation, became detached, and was thrown up in two hours after the drops had been commenced, they being used every quarter of an hour. This false membrane lined the trachea, and went down as far as the bifurcation of the bronchi.

"In another child, drops of cold water, used in the same manner for six hours, produced no result; while, after a warm solution of chlorate of soda had been used for one hour, fragments of false membrane became detached, and were thrown up, and continued to be expectorated abundantly for several hours.

Let us see now the condition in which the false membrane has been found in some children who died, notwithstanding the use of the chlorate of soda drops. In a little girl, 21 months old, the croup progressed so rapidly, that thirty-six hours after its invasion, impending asphyxia rendered the operation necessary. No false membrane was thrown up after the operation. The chlorate of soda was dropped in almost every hour, and at the end of about twenty-four hours a small fragment of false membrane escaped from the canula; however, no improvement followed. On the next day the dropping in of the fluid caused very slight cough, and the discharge of an aqueous fluid, slightly opaque, like when purulent mucus is shaken in water; moreover the sharp râles indicate an extensive capillary bronchitis. Death supervened the fourth day after the operation. The trachea was lined by a false membrane, slightly adherent and tenacious, and softened down, so that it was almost impossible to detach it in strips. This membrane did not cover the entire of the mucous surface, but formed, as it were, little islands, between which the exposed mucous membrane was visible, giving a mottled appearance to the internal surface of the trachea. In this case it would seem that the false membrane had been softened on the internal surface, and worn away and detached in several places.

In a boy three and a-half years old, who was admitted into hospital on the fourth day after the commencement of the croup, M. Barthez first cauterized the larynx, by means of Dr. Loisean's tube. This was done three times, at intervals of thirty hours, but without any marked effect; at length asphyxia became imminent, and tracheotomy was performed, and was followed by a rejection of some false membrane. A solution of chlorate of soda was dropped in every hour or half-hour;

each drop produced a slight fit of coughing, followed by expectoration of mucus, without any false membrane. No improvement took place, and the child died twenty-four hours after the operation.

At the autopsy we found a false membrane extending continuously from the top of the larynx to the third ramification of the bronchi. In the larynx this yellow false membrane filled the ventricles, and closed up the wind-pipe; it was adherent to it, and sufficiently consistent to be detached in one piece. In the trachea it formed a complete tube; but from the inferior part of the larynx to the commencement of the bronchi it was softened, almost semi-fluid, and could only be detached in small fragments. In the bronchi it resumed its consistence, and closed up a great portion of the air-tubes. In this child, then, the chlorate of soda appears to have softened the false membrane superficially, but there was not sufficient time for it to be detached and thrown up.

In a child five years of age, admitted on the third day after the attack, ordinary treatment having failed, the operation was performed on the fourth day. After the lapse of about an hour, false membranes were thrown up spontaneously. Two hours later, their expulsion having ceased, we began to use the chlorate of soda drops every half hour. A very large quantity of false membrane was thrown up for about four hours; then all expectoration ceased, and the child died asphyxiated ten hours after the operation. The larynx was found partly obliterated by false membranes of a medium size, and partly detached. On opening the trachea, this tube did not contain any fibrinous product, but at its inferior portion, and at the commencement of the bronchi, there existed a collection of false membrane, placed across the bifurcation of the bronchi, falling down into each bronchial tube, and prolonged uninterruptedly as far as their third ramification. This mass was not anywhere adherent; it seemed to be altogether detached from the parts above it, and to be retained below only by its continuity with that portion which filled the bronchial tubes.

These five cases are sufficient to show that the action of chlorate of soda on false membranes in the trachea is, if not certain, at all events very probable. They show also its different modes of action. In appreciating its value, we are to take into account, not only the solvent power of this solution, but also the effects of the application of water alone, and also of the fits of coughing which the introduction of fluid will produce; and the assistance thus rendered to the detachment of the false membranes. Notwithstanding this complicated mode of action, M. Barthez thinks he has good grounds for referring the good results, partly or entirely, to the solvent action of the salt.

3.—*Indications and Contra-indications for the use of the Chlorate of Soda Solution.*—1. The first indication arises from the existence of false membrane in the trachea, or in the trachea and

bronchi. If the fibrinous product be seated in the throat or larynx exclusively, it would not be necessary to use the drops. It certainly is not always easy to be satisfied as to the existence of this false membrane in the larynx; but supposing any doubt to exist on the subject, there would no harm arise from their use. In that case they act, not so much by the specific power of the salt as by the warm water, which dilutes the adherent mucus, provokes cough, and favours expectoration.

2. Whatever be the situation of the false membrane, if the child presents symptoms of diphtheritic poisoning, there is no motive for using the drops. In that case it is not the false membrane which kills. We are not warranted even in performing tracheotomy; much more is the use of the chlorate of soda solution perfectly inefficacious.

3. If the expectoration is easy and abundant— if the false membranes are easily detached, and thrown off in proportion as they are formed, there is no occasion for using the drops.

4. The only indication for their use, then, is in those cases where, after operation, the false membrane in the trachea or bronchi is thrown off with difficulty, and threatens to produce asphyxia. The symptoms which indicate such condition are not absolutely certain. Those which have hitherto guided me are the dry and strident noise, or sort of dry *claquement*, produced by the passage of air through the canula and the trachea; the obscurity of the respiratory murmur; the absence or scarcity of mucous or pseudo-membranous expectoration; the persistence of, or the not sufficient rallying from, the impending asphyxia which precedes the operation.

The indication being well established, will the use of this solution, as described, of necessity bring about a cure? That does not at all follow, as, indeed, is proved by the cases above detailed. The chlorate of soda may assist the child in getting rid of the mechanical impediment to the entrance of air into the lungs; it does nothing more. After tracheotomy, life depends on too many different circumstances for us to hope to save it by one single measure which is only calculated to serve a special purpose, as is the chlorate of soda. It is, then, only under the circumstances which I have pointed out, that I consider the use of the solution of chlorate of soda can be of any service after tracheotomy, or that I advise surgeons to make trial of it.—*Gazette Medicale.*

USE OF THE ESSENTIAL OIL OF TURPENTINE AND OPIUM IN LARGE DOSES IN THE TREATMENT OF SEVERE PUERPERAL AFFECTIONS.

In the discussion going on for the last three months at the Academy of Medicine of Paris, and which has attracted so much public attention, puerperal fever has been considered by the most competent authorities as a disease almost universally beyond the resource of art, at least in the

present state of our knowledge; all the means hitherto employed have, almost without exception, proved useless. This melancholy confession of the inefficacy of medicine to subdue an affection which carries off so many women in the flower of their age, is, unfortunately, but too well founded when we speak of the severe epidemic form, but ought not, however, to be adopted as literally true. We have lately seen a case of very severe puerperal peritonitis, which M. Antoine has cured by the method above mentioned, and which Velpeau introduced many years ago. We have since seen two cases in Velpeau's wards, both cured in the same way. This plan of treatment is by no means new, for we remember to have used it with success some twenty years ago, but it is not the less worthy of notice. It is the plan of Graves (of Dublin) which Trousseau has long employed with advantage in the treatment of puerperal illnesses; it consists in giving to lying-in women attacked with metro-ovariitis, or phlegmonous inflammation of the broad ligaments, or peritonitis, or uterine phlebitis, &c., &c., opium and essential oil of turpentine in large doses.

Dr. Bonfils has just published, *in extenso*, in the *Bulletin Therapeutique*, two very interesting cases of this kind. In the first the patient was attacked after her confinement with peritonitis and double pleuro-pneumonia, and was cured of this formidable complication after seven weeks' treatment. The other patient was attacked under similar circumstances, with a very severe general peritonitis, all the puerperal complications were rapidly checked by the plan of treatment recommended, but after the most marked improvement, which promised to end in a perfect recovery, she was seized with symptoms of hectic, which closely resembled that of pulmonary phthisis, and she finally sunk, owing, in all probability, to a purulent infection.

Opium and turpentine were administered in both cases in the following manner:—

In the first case Trousseau prescribed opium in pills and turpentine in enemata; he gave at first 5 centigrammes of opium, in five pills, in the day; then the dose was raised to 8 centigrammes, in eight pills; then 10 centigrammes, in ten pills. The opium was continued for thirteen days.

Turpentine was administered at first in doses of 10 grammes,* divided into two enemata; one was given morning and evening; then it was gradually increased to 20 grammes, 25 grammes, 30 grammes; this last dose was continued for fifteen days. The following was the formula adopted, essential oil of turpentine, 10, 20, 25, 30 grammes; yolk of an egg; water, 100 grammes, to be divided into two enemata; add to each enema five or six spoonfuls of gum water or linseed. The enema to be retained as long as possible.

* Gramme=15.4325 grains Troy. Centigramme (100th of a gramme) = 0.15432 grain.

In the second case the opium was likewise given in pills, in the dose of five centigrammes continued for three days. The essential oil of turpentine was administered by the mouth, in capsules, for six days; the patient took every day six capsules, each containing 1 gramme of the essential oil; she took two morning, noon, and night.

M. Bonfils details the following as the physiological phenomena which were noted as occurring in both cases:—

In the second case, immediately after taking the capsules, the patient felt a sensation of intense heat at the pit of the stomach; a few minutes afterwards there was a very complete general reaction, characterised by heat of surface, general perspirations, increase in the volume and frequency of the pulse; then followed in succession confusion of vision, vertigo, stupefaction, and drowsiness, and, after some time, itchiness of the skin.

The physiological phenomena were less pronounced when the turpentine was administered in enemata; they consisted in an immediate sensation of heat in the abdomen, a general but moderate reaction, slight vertigo, some confusion of ideas, slight disturbance of vision, and slight itchiness of the skin. Such were the phenomena which existed in the first case.

REPORT OF A CASE OF DEATH CAUSED BY SWALLOWING OIL OF TURPENTINE.

By JOHN MAUND, M.D.

The following case seems worthy of recording, from my being unable to find any published account of death occurring from swallowing oil of turpentine. Christison, when speaking of this subject, says—"I am not aware that it has ever proved fatal." Taylor states—"I believe there is no case on record of destruction of life by turpentine." Other authors seem to agree in the same opinion; and neither Beck nor Guy, in their works on Medical Jurisprudence, treat of turpentine as a poison. From such testimony it evidently is manifest, that death occurring from its administration must be very rare. Pereira and Christison both mention, on the authority of Professor Schubarth, "that two drachms of this oil, administered to a dog, produced immediate staggering, cries, tetanus, failure of the pulse and breathing, and death in three minutes."

Being anxious to ascertain if such effects were by any means constant, the following experiments were made:

1st.—To a moderate-sized dog half an ounce of oil of turpentine was given; this produced, immediately, quickness of breathing, increased flow of saliva, frequent but ineffectual attempts to vomit, giddiness, and appearance of intoxication. The whole of these symptoms passed off in twenty minutes, and the dog appeared little worse for the dose.

2nd.—To another dog was administered two ounces of oil of turpentine. Similar symptoms to those before described immediately occurred; in addition, there was shaking of the limbs, and a greater amount of general prostration. Half an hour afterwards drowsiness became a prominent symptom, and the giddiness seemed to have increased, so that the dog could with difficulty stand. The eyes were much congested and everted, so that scarcely any portions of the cornea could be seen. The countenance presented the appearance of suffering and depression. The dog lay down on its side; frothy sputa kept running from the mouth, and the animal

seemed to be dying; still consciousness was never totally lost, for its attention could, though with difficulty, be attracted by speaking loudly, or by touching it. The following morning the dog seemed much better, and it gradually recovered from the effects of the turpentine.

3rd.—To a third dog three ounces of oil of turpentine was administered. For the following quarter of an hour the only effects manifest were quickness of breathing and increased flow of saliva; giddiness and general intoxicating effects then supervened; in half an hour the dog lay down on its side, with its legs stretched out, and, excepting that the eyes were not everted, presented much the appearance of the second; and on the following day it gradually recovered.

4th.—To another dog four ounces of turpentine were then given. This, in two or three minutes, produced great excitement; respirations were 108 per minute; clear saliva kept streaming from both sides of the mouth; but no giddiness or sleepiness, as in the other cases, occurred. Half an hour after the turpentine was administered, the dog broke his cord, and ran about as if greatly excited; but he would come when called, and appeared perfectly tractable and docile.

From these experiments it would appear, that the effects of oil of turpentine on dogs, described by Schubarth, like the following case of poisoning in the human subject, must be the exception, rather than the rule.

The following account of a case of suicidal poisoning by oil of turpentine I abridge from the depositions taken at the coroner's inquest, and from information that I obtained at the time of making the *post-mortem* examination.

E. H., a female of thirty years of age, and healthy appearance, had for some months been living with a man as housekeeper and mistress, but, from his signifying his intention of leaving her, she became low-spirited, and for a few weeks before her death indulged freely in the use of stimulating drinks.

On the day of her death, a neighbour with whom she was intimate called to see her; she then appeared well, though a little excited, but by no means intoxicated. While conversing with the deceased, she noticed a soda-water bottle, which she took up, as she thought it contained gin; at that time the bottle was nearly full, and contained turpentine. At the request of the deceased, she went to fetch her some meat from the butcher's; on returning shortly afterwards, not finding her in the kitchen, or answering when called to, she put down the meat, and left the house. Four hours after this witness had left her, she was found dead, the meat and other things about the room being in the same order as the witness saw them when she returned with the meat.

The position of the body, which had not been moved when I saw it, about forty hours after death, at once suggested to my mind that death had occurred from strychnine, the results arising from which I am quite familiar with, having made four *post-mortem* examinations, within the last three years, when death had taken place from this poison. The deceased evidently, immediately before death, was sitting on the side of the bed, and when found, seemed to have simply fallen backwards across the bed. The legs were rigid, and stretched out before the body, and the soles of the feet were concave; the arms were bent across the chest, and great force was required to straighten or remove them from this position, the biceps muscles being forcibly contracted, and very hard. The body assumed the state of opisthotonos, and all portions of it were rigid, but thighs least so. The eyes were open and prominent, and the pupils slightly dilated; the jaws were fixed, and could not be opened; the skin generally, was pale, but of a livid hue in places, particularly about the head. The general appearance of the body was such as to give the idea that death had occurred sudden from tonic spasm. There was no derangement of the dress or bed-clothes to indicate convulsive action, and no external marks of violence. An empty pail was found on the

floor, close to the deceased, which probably she had placed there in case sickness should occur.

The internal organs of the body presented the usual appearance of a person dying from asphyxia. The membranes of the brain and upper portion of the spinal cord were found greatly distended with very dark-colored blood, of a sicy consistence, but it had no unusual smell. The brain was not softer than natural, but was, to a less extent than its membranes, congested with blood of the same character. The mucous membrane of the trachea was rendered quite arborescent by the ramification of a net-work of distended vessels, but in the interstices the membrane was of the usual colour. The lungs were gorged with blood of the same dark appearance as was found in the membranes of the brain. The cavities on the right side of the heart were distended with blood; the left also contained a small quantity of blood; in both sides it was of equally dark colour. The liver and kidneys were congested, but to a less extent than the organs before mentioned. The bladder was empty, and firmly contracted, but appeared healthy. The stomach and bowels were the last part examined. Immediately on the stomach being opened, a most powerful smell of turpentine became evident, which had not before been recognised; this organ contained a small quantity of thick fluid, which had the appearance of an emulsion made with turpentine and mucilage. The duodenum and upper portion of the jejunum were considerably congested, and the smell of turpentine was evident in all portions of the intestinal canal.

A further examination of the stomach and its contents showed that the mucous membrane was congested, and several very large vessels, injected with dark blood, were found passing from the cardiac to near the pyloric extremity; and in several places close to these vessels small ecchymosed patches existed. The contents of the stomach amounted to three ounces; it was of a semi-fluid character, and globules of what appeared to be oil of turpentine were seen to be intermixed with the more tenacious contents. Distilled water was then added to it, and thoroughly mixed together; three hours afterwards there was found swimming on the surface a limpid fluid, which was removed with a pipette, and was found to consist of oil of turpentine, of which there was six drachms. The remaining contents of the stomach were then examined for strychnine, but none was discovered in this, the parietes of the stomach, or mixed with the turpentine which had been removed. Under the microscope the solid contents were seen to consist chiefly of wheat and potato starch corpuscles.

The house was carefully searched as soon as the deceased was discovered, to ascertain if poison of any kind could be found, or if any vessel was soiled by any unusual fluid; neither, however, could be discovered. The bottle containing turpentine was found on the shelf, where the witness said she saw it, before leaving to fetch the meat for the deceased. The quantity removed from the bottle was about six ounces; whether the whole of this was swallowed, it was impossible to ascertain, but it seems highly probable that the portion taken was drank directly from the bottle. No smell of turpentine in the house, or suspicion of its having been taken, existed till the stomach was opened.

The deceased, it seems, had several times hinted that she would destroy herself, but this threat did not appear to have excited any serious apprehension that she intended carrying it into effect.—*Australian Medical Journal; and Chemist.*

ABSCESS IN THE BRAIN, FROM OBLITERATION OF THE CAROTID TRUNK BY THE PRESSURE OF A NASAL POLYPUS.

A pale, emaciated man, rather past middle age, was admitted, under Mr. Simon's care, into St. Thomas's, on account of profuse bleeding from the nose. He was partially deaf; the left eye squinted inwards;

and the right was totally blind, and had been so for some weeks. It appeared that, so long as thirty years ago, he had been under surgical treatment on account of a polypus in the nostril. Many attempts had, from time to time, been made to extract the growth, but had never been wholly successful. He was much reduced by loss of blood at the time of his admission, and a few days afterwards had an epileptiform seizure, which left him with incomplete hemiplegia of the left side. Ten days later another fit occurred; and death, in coma, followed, thirteen hours afterwards. At the autopsy a very interesting and most unusual condition of things was found. In the right cerebral hemisphere were three distinct abscesses, and the brain substance generally was much softer than that of the opposite side. The cause of these was found in the entire obliteration of the internal carotid artery, by the compression and irritation of a large nasal polypus, which had grown upwards, and caused extensive absorption of the body of the sphenoid bone. It was impossible to trace the carotid artery through the cavernous sinus, its coats being inseparably blended with the dura mater and old inflammatory material. The sphenoidal sinus was occupied by a mucous polypus. There was not the least reason to consider the polypus of malignant nature, it being evidently of the ordinary fibrous kind. There were no secondary growths in any part of the body.

NEW LOCAL APPLICATION IN ERYSIPELAS.

M. Anciaux speaks in high terms of the following application for erysipelas and some other cutaneous affections:—Alum, reduced to impalpable powder, 30 parts; white precipitate, 1 part. Rub up well together, and place the powder in a bottle, and then add from 90 to 100 parts of glycerine. Shake the bottle until the mixture assumes a creamy consistence, and repeat the shaking whenever the application is about to be employed.—*Presse Belge*, 1857, No. 19.—*Medical Times and Gazette*.

NEW HÆMOSTATIC.

After prolonged experience, M. Lami strongly recommends the following hæmostatic:—B. Decoct rhataniae, 300 parts; alum, 60 parts. If the mixture is to be given internally, 70 parts of syrup are to be added. When given internally, 10 drachms may be taken three times daily; while, for external use, it may be employed as injection or lotion. Its action is prompt and efficacious in almost any variety of hæmorrhage.—*Ibid.* No. 32.—*Medical Times and Gazette*.

THE SEX OF EGGS.

The Académie des Sciences publishes in its "Comptes Rendus" the title only of a note addressed to it by M. Génin, who thinks he has discovered the clue to the secret whether the contents of an egg be male or female. M. Génin sums up his proposition thus:—"There are two classes of poultry traders—first, those who want female eggs only, to rear hens for the sake of their eggs; and secondly, those who want male eggs only, to produce cocks and capons to eat. Now, if these eggs are not *a priori* distinguishable, the natural results of hatching must be accepted as a matter of necessity, whence there arises a dead loss for each of these classes of poultry breeders. Without any view to trading profit, I have long attempted the solution of a problem which professional poulterers pronounce insoluble. Long have I remained in incertitude; at last I discovered my way, by starting from the fact that the bones of women are smoother and cleaner in their texture than those of men, as may be seen from a comparative examination of the skeletons of the two sexes. Applying at the outset this point of comparison, I am able, after three years'

study, to state with assurance, that all eggs containing the germs of males have wrinkles on their smaller end, while female eggs are equally smooth at both extremities." Such is M. Génin's conclusion. At this season of the year it would be very easy to ascertain by experiment whether the test has any foundation in fact or no.

COMPOSITION OF CINCHONINE.

M. Schutzenberger finds that cinchonine can, when acted on by nitrous acid, fix two equivalents of oxygen, similar to morphine; and thus we obtain a body identical with quinine in its constitution, but which, in its properties, has a greater resemblance to cinchona. This would seem to prove that the difference of properties between these two substances is not due to there being two equivalents less of oxygen in the cinchonine, but to their elements being arranged in a different manner.

ON THE MALADIES WHICH AFFECT OPERATIVES WORKING IN THE VARIOUS PREPARATIONS OF SULPHATE OF QUININE, AND ON THE MEANS CALCULATED FOR PREVENTING THEM.

By M. A. CHEVALLIER.

The author, in concluding his memoir, sums up in the following terms:—

1. The workmen engaged in various operations in manufactories of sulphate of quinine are liable to be attacked by a cutaneous disease, which may be extremely serious, and which compels them to suspend work for a fortnight, or even more than a month.

2. Among these workmen are some unable to continue the work, and are compelled to leave their employment.

3. M. Zimmer, manufacturer of sulphate of quinine at Frankfort, ascertained that the workmen engaged in the pulverisation of the cinchona, in his manufactory, were attacked by a peculiar fever, which he designates by the name of cinchona fever (*china feber*).

This disease, according to M. Zimmer, is so painful, that workmen who have been seized with it have renounced the pulverisation of the cinchona, and have left the manufactory.

4. This fever has not been observed in France.

5. We are not yet acquainted with any prophylactic measures as regards the cutaneous disease occasioned by working in sulphate of quinine manufactories.

6. This cutaneous disease attacks not only the workmen employed in the various operations, but it may also attack persons exposed to the emanations of the manufactories.

7. It attacks the sober men, as well as those who give way to excesses.—*Comptes Rendus*, No. 19, May 10, 1858.

ABSENCE OF UREA AND URIC ACID IN YELLOW FEVER.

Dr. Porcher states, that careful microscopic and chemical examination of the urine during the whole course of an epidemic of yellow fever occurring in Charleston, in 1856, proves the constant absence of urea and uric acid. He attributes to this failure of elimination some of the most dangerous symptoms of the disease, as the coma and other indications of torpor of the brain in the latter stages.—*American Journal of Medical Sciences*, April, 1858.

The City of London Lying-in Hospital has been greatly benefitted in its funds, says the *Constitutional Press*, by a contribution of 24,000 penny-pieces, collected by a lady of rank, within the last twelve months, from her friends and visitors.

Habitus,

Hygiene. By JAMES H. PICKFORD, M.D. Churchill, London.

We have much pleasure in bringing before the notice of our readers, and especially of that portion of them who, as students, are preparing for a medical career in our military or naval public services, or for the examinations of the East India Company, this very useful work upon a subject which is greatly neglected and overlooked, even by those who are most ready to admit the vast importance of endeavouring to prevent the development and spread of disease, and the extremely practical and beneficial results which follow from a moderate attention to hygienic rules.

In his preface Dr. Pickford states, that "on matters of hygiene we have in this country no standard authority, no single work, no manual even, to which to refer;" and to supply this want Dr. Pickford has given us an able and valuable volume. Being himself familiarized with the practical details of his subject, by long service in Her Majesty's household troops, previous to his engaging in the labours of private practice, his experience is now rendered available for the student and the physician, and will, we hope, prove of much value in our endeavours to solve one of the great social problems of the present day—not how to cure disease, when once developed in its full force and virulence, but its prophylactic treatment—its discovery at its original sources, and their consequent removal and destruction—a question of such importance that it is difficult to over-estimate it, and which is of equal interest to the civilian in our crowded towns, and to the guardsman in his barrack-room; for both require fresh air, good ventilation, and proper attention to drainage, sewers, &c.

In Dr. Pickford's words, "the author's aim is to present to his professional brethren, to the medical student, and to the public at large, a simple and exact statement of facts and of admitted truths, together with such inferences and deductions as the subject may appear to warrant and demand."

The first part embraces the physics of the atmosphere—the seasons, temperature, rain, winds, and pressure; the respiration of plants and animals; the circulation of the blood; the chemistry of respiration and animal heat; infection, contagion, malaria, sewerage, drainage, ventilation, and climate in connexion with disease.

The second part treats of "digestion, food, and drinks; their impurities and adulterations."

The concluding portion of the volume is devoted to the consideration of "motion and rest, sleep and wakefulness, secretions, excretions, and retentions, mental emotions, clothing, bathing, &c."

By the extent of this programme, it will be evident that Dr. Pickford's task has not been either a light or easy one; and the amount of information

amassed in his work is, on all these subjects, very considerable. It has been judiciously divided, for reference, into paragraphs marked by separate numbers; and these are rendered available by an extremely copious and valuable index—a part of a volume which every person familiar with books will at once look to, as one of the readiest criterions of the author's care and ability, and the want of which is hardly compensated for by any amount of brilliant writing or elaborate details.

UNIVERSITY OF OXFORD.

EXAMINATION FOR THE DEGREE OF BACHELOR OF MEDICINE.

EXAMINERS.

Dr. ACLAND, Regius Professor of Medicine.

Dr. CHAMBERS, Physician to St. Mary's Hospital, London.

Dr. ROLLESTON, Lee's Reader in Anatomy.

No. I.

OXFORD, JUNE, 1858.

Anatomy and Physiology.

1. Describe, in the human subject, the bloodvessels at the base of the brain.
" at the root of either lung.
" on the walls of the œsophagus, stomach, and duodenum.
" in the hilus of the kidney.
2. State the origin, course, distribution, and functions of the third nerve in man.
3. Describe a typical vertebra.
4. What are the several points of ossification in the 1st, 2nd, and 3rd cervical vertebrae? In the scapula, temporal, and sphenoid bones?
5. What conditions favour, retard, or prevent the coagulation of the blood?
6. What are the functions of the cerebellum?
7. What effects are produced upon the several functions, and upon the duration of life, by section of both pneumogastric nerves?
8. What are the objects under the microscope numbered i., ii., and iii.?
9. State what you know of the accessions recently made to our knowledge of the physiology and minute anatomy of the spinal cord.
10. Describe the minute structure of the human lung.

No. II.

Chemistry and Botany.

1. Describe the several varieties of sugar, giving their sources in the animal and vegetable kingdoms, their employment in the arts, and the tests for their presence, together with such fallacies as these are liable to.
2. What are the chemical constituents of the urine, and what relation do they hold to the several tissues of the body?
3. What is the received chemical formula of each of the following substances—Ammonia, cyanate of ammonia, urea, uric acid, oxalic acid, creatine, alloxan, mu-rexid, albumen, fibrin, gelatin?
4. By what means do you recognise the presence of arsenic in organic solutions?
5. By what experiments has the constitution of the atmosphere been determined with exactness?
6. Give an account of the methods in use for the determination of nitrogen in an organic body.
7. How would you ascertain the absolute amount of carbonic acid present in a room of given dimensions? What is a proper cubical space for each patient in a hospital ward?
8. What is meant by the terms "Amide" and "Nitride?"

Illustrate your answer by examples. Does hydrocyanic acid belong to either of these classes of bodies?

9. State the various processes by which calomel may be converted into corrosive sublimate, and corrosive sublimate into calomel.

10. Describe the way in which plants are nourished, and name some substances which they seem to derive from the external world, and some which they elaborate themselves.

11. From what parts of what plants are derived—(1) opium, (2) *extractum colchici aceticum*, (3) *oleum bergamottæ*, (4) *rhei pulvis*, (5) *tinctura digitalis*, (6) *strychnia*?

No. III.

Pathological.

1. What is the state of the blood in patients affected with (1) scurvy, (2) anæmia, (3) Bright's disease of the kidneys, (4) rheumatic fever, (5) pleurisy, (6) advanced pulmonary consumption, (7) typhus, (8) purpura?

2. Describe an ordinary case of confluent small-pox in an unvaccinated person.

3. What are the most usual chronic lesions after—(1) scarlatina, (2) measles, (3) ague, (4) gonorrhœa, (5) cholera, (6) rheumatic fever, (7) dysentery.

4. What may be the consequences of protracted exposure to cold and wet?

5. What are the poisonous effects on the human frame of (1) mercury, (2) lead, (3) arsenic, (4) digitalis, (5) strychnia, (6) tobacco—in large and small doses respectively.

6. Describe the invasion of illness, the course of the disease, and the *post-mortem* appearances in a child of ten years old affected with tubercles in the arachnoid.

7. Name the urinary deposits under the microscopes A, B, and C.

8. Describe the *post-mortem* appearances most likely to be found in cases of apoplexy, in the head as the immediate cause, and elsewhere as the remote causes of death.

9. What are the usual causes of chronic abscess of the liver.

10. Name forms of disease likely to affect bakers, cobblers, needle-pointers, stone-masons, well-sinkers, grocers, chimney-sweepers, lucifer match makers, and coal-whippers, respectively.

No. IV.

Therapeutical.

1. Describe the medical treatment of hæmorrhoids, under various circumstances.

2. How would you treat the several complications of idiopathic low fever?

3. Are any rules of guidance for the administration of wine in fever to be obtained from the heart?

4. Describe the alkaline treatment of rheumatic fever, writing prescriptions in full, without contractions.

5. What are the immediate effects of blood-letting, and under what circumstances would you employ it? By what tests would you judge of the power of the patient to bear it?

6. What is the physical action of heat applied externally to the human frame, and when and how would you employ it therapeutically?

7. If a woman, during the early months of pregnancy, lost blood *per vaginam*, after unwonted exertion, what evil would you anticipate, and what means would you adopt to prevent that evil?

8. What prognosis would you give, and what treatment would you adopt, in a case of acute traumatic and chronic idiopathic tetanus, severally?

9. Write prescriptions for elaterium, scammony, gamboge, senna, and Rochelle salt, intended to produce their full effect on an adult—first simply, and secondly in combination.

10. How did Rasori employ antimony in inflammations; with what success; and with what risks?

11. How do cold moist air and warm dry air respectively affect the lung; and by what therapeutical means can you modify for a patient the hygrometric state of the respired air?

No. V.

Clinical Examination. (*Radcliffe Infirmary.*)

1. Write a clinical report on the cases of whom you will find in

State the probable course of the cases, and write a brief commentary on them.

2. Are the specimens of urine marked A, B, C, respectively, healthy? If not, state in what particulars they are abnormal. If unhealthy, what indications for treatment do they furnish?

The Examination was concluded by translations from Latin and Greek into English.

Four candidates passed—*Drs. E. Gray, A. Wallace, W. Ogle, and E. T. Wilson.* The examination lasted three days. A large part of the practical examinations was conducted *visu voce*, besides the clinical cases, which were described by the candidates at the hospital. We have not printed the classical papers, but may say that the selections were particularly happy. It is probable that the period of study will be extended from three to five years, and that the examination will be divided into two periods—one scientific and preliminary, for the M.B., without licence to practice; the other for the M.D. degree—a practical examination, with the licence.

Professor OWEN has just been elected Fullerian Professor of Physiology at the Royal Institution. The salary is about £100 per annum; the duties, the delivery of twelve lectures annually. The chair is usually held for three years. The Institution, the Professor, and the public, should all be well satisfied.

A NEW METAL.—*Mr. Joseph Jones, of Bolton-le-Moors,* states that he has discovered the perfect metal sulphurium, which is of the same class as arsenicum, silver, aluminium, &c. Oxide of sulphurium is the refuse of the manufacture of sulphuric acid from brimstone, and has no commercial value, persons being paid for carting it away. In its refuse condition it has almost the specific gravity of iron, and the atoms are very fine, malleable, and ductile.—*Miner's Gazette.*

Dr. Tice has recommended the re-vaccination of the whole army. The camp-followers are the chief victims and the chief promulgators of the disease, because their religious scruples do not permit them to be protected by vaccination.

APPOINTMENT.

His Excellency has been pleased to appoint FRANCIS L'ETANG, Esq., A.M., M.R.I.A., F.R.C.S.I., to be State Surgeon-Dentist to His Excellency.

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Meath Hospital.

CASE OF AMPUTATION OF THE THIGH, IN WHICH SILVER-WIRE SUTURES WERE EMPLOYED.

By GEORGE H. PORTER, M.B., F.R.C.S.I.;
One of the Surgeons to the Hospital.

Thomas Potts, aged 35, a married man, by occupation a carpenter, was admitted into the Meath Hospital on the 25th May, 1858, labouring under a very severe compound fracture of the right leg. He had received the injury in the following manner:—Whilst engaged in examining some large slabs, which were placed as steps to a recently-built house, he incautiously jumped on one of them, badly supported at the time; it suddenly turned under his weight, and he fell eight or ten feet into an area; the large stone followed, and struck his leg just when he reached the ground, breaking the limb about its centre. He made great exertions to extricate himself from this position, and in so doing inflicted extensive laceration on the soft parts, causing protrusion of the tibia, to the extent of an inch and a half on the outside of the leg. On the inner side was also a wound laying open a large varicose vein, from which issued considerable hæmorrhage.

Finding that the anterior and posterior tibial arteries were uninjured, it was determined to attempt saving the limb; and accordingly I reduced the fracture, by dividing the lower lip of the wound, which so tightly constricted the bone, that without this procedure I found it quite impossible. The leg was then placed in a fracture-box, and the usual means adopted to insure rest and subdue inflammation. The bleeding from the varicose vein gave a good deal of trouble, but was eventually arrested by pressure with a compress of lint.

Without entering into all the details of this case, I may mention, that extensive suppuration resulted, large abscesses forming in the leg, which extended along the bone to the knee-joint, and

the patient's strength began to decline so rapidly, that it was determined, at a consultation with my colleagues, to remove the limb at the thigh.

On the 12th June I performed the amputation, by cutting anterior and posterior flaps; and having a short time previously read a discourse delivered before the New York Academy of Medicine, by Mr. Marion Sims, on "Silver Sutures in Surgery," I resolved to try the use of them in this case, from the high terms in which he speaks of their action. He says—"I have used silver sutures in amputations of the thigh and leg, and in every case produced union by the first intention throughout the whole extent of the wounds, with the exception of the point left for the passage of the ligatures." Although I was not so fortunate as to obtain this union through the entire length of the wound, I can recommend their use most strongly, from the experience of this case.

I inserted seven silver-wire sutures along the face of the stump, the flaps of which they held with the utmost precision, and in several points obtaining for me union by the first intention, or primary adhesion.

I was enabled to tie the fine wire with facility, in nearly as tight a knot as I could a thread of silk, and to bring the edges of the flaps closely together with a less amount of force, the sutures retaining them in perfect apposition, without any yielding whatever. The first of these I did not remove until the tenth day after the operation, and the last was not taken out until the fourteenth morning. During the entire period they remained there was no inflammation in their neighbourhood, and very slight ulceration marked the sites they had occupied.

I am induced by its happy termination to give this case to the Profession, as I feel confident that metallic sutures (when applicable) will hereafter supersede the use of those made of organic substances, such as silk, hemp, or flax, which every practical surgeon has seen, almost invariably, to produce ulceration and suppuration by their presence, even when left in for a short period. I may also remark, in favour of these silver sutures, that

although this patient was much broken down in health, evidenced by the formation of bed-sores, yet the healing of the stump progressed most favourably from the commencement—a fortunate result, which, perhaps, might have been retarded by the supervention of erysipelas, if I had inserted sutures composed of silk.

ON THE TREATMENT OF ALBUMINURIA.

By Dr. HANS FLEMING,

Of Omagh.

The tendency amongst medical men to generalize upon inadequate data, and to attribute peculiar value to particular remedies, because in a few instances a cure may have followed their administration, has led to great doubt and uncertainty as to the real properties of most of our remedies. A glance at any of our Medical Journals will satisfy any reasonable mind of the mischief done by inconclusive reasoning of this sort: they contain for every disease an endless variety of remedies, some of them of diametrically opposite properties, but all recommended or extolled for unequalled efficacy. The *post hoc propter hoc* argument is one to which the medical profession has been, at all times, pre-eminently obnoxious.

Now, with respect to the treatment of albuminuria I am sure we are still very much in the dark; and so we are likely to be, until, by the aid of organic chemistry and the microscope, we are enabled to distinguish the varied conditions upon which this symptom depends. That there are several morbid states of the kidney, all differing in size, appearance, and intimate structure, which give rise to this symptom, there can be no doubt. An inflammatory and a fatty degeneration of the kidney would surely suggest very different modes of treatment. I happened lately to lay my hands on the notes of a case which occurred to me nearly sixteen years ago, in the person of a near relative, in which the mercurial treatment was adopted with success; and as it tends to show that in many cases of albuminuria mercury may be given, not only with safety but advantage, its insertion here may not be out of place. The person referred to is at present in excellent health. I could without difficulty cite a great many other cases, in which the most unequivocal benefit was derived from the administration of mercury in this disease; and my friend, Dr. Kellett, of Moynalty, who has paid great attention to this subject, told me, some time ago, of several cases in which the happiest results were obtained by mercury; and Dr. Thompson, of the Tyrone Infirmary, mentioned lately a most interesting case of an old lady, of some seventy years, with renal dropsy, oedema of the lungs, and albuminous urine of low specific gravity, in whom, after the failure of all other re-

medies, mercury produced the most signal benefit. I do not, however, wish it to be understood that I consider mercury the best and safest remedy in all, or even in many, cases of albuminuria; I only assert that it may advantageously be given in many cases, and that when all other remedies prove valueless, complete recoveries often will follow its use. How are we to know the cases in which to give, and in which to withhold, this remedy? This is still an open question. My own impression is, it is inadmissible where there is any decided evidence of a scrofulous habit. In the very old, and in cases of long standing, it is of doubtful efficacy; so is it, too, where the anæmic condition is well marked, and the circulating fluid in general seems much deteriorated. On the other hand, in those not above the middle period of life, where the disease is not of more than a few months' standing, and the general health is not quite broken down, mercury will oftentimes, in my mind, accomplish what no other remedy will. I cannot help thinking that the prejudice against mercury, in this and some other diseases, so generally entertained by metropolitan practitioners, is owing, in a great measure, to the bad subjects they have to do with. The poor inhabitants of large cities are proverbially the worst subjects for disease. Rural practitioners seldom witness the mischievous effects so often produced by mercury in large cities. When a very small quantity of mercury produced, as too frequently happens in Bright's disease, the specific effects of this mineral, benefit seldom resulted; but when, on the other hand, the medicine was well borne, and when it required nearly as much as it did in other diseases to effect the system, then our expectations of benefit were not often disappointed. I always commenced and continued its use with great caution; but in some cases in which it unexpectedly produced rapid salivation, and did no good, I feel persuaded that it did no permanent injury, and that nothing was lost by giving it a trial.

E. B., aged 48, unmarried, enjoyed good health up to February, 1843, when she caught cold, from incautious exposure on a wet day. The attack presented the ordinary features of a common cold, but the cough became protracted and troublesome, notwithstanding the diligent use of the usual remedies, including every variety of pectoral and blistering. She lost strength, condition, and colour; her feet began to swell, and she complained of rheumatic pains in various places, but principally in the back and loins. She was now treated with hydragogue purgatives and diuretics, but all to no purpose. Matters went from bad to worse till the 14th of May, when I saw her for the first time, in consequence of a fit which she had on getting out of bed in the morning. I found her in a semi-comatose state, with bloated face, and the watery eye peculiar to renal dropsy. Her feet and legs were anasarcons; so were her hands and arms, to a slight degree. Her skin was of a dingy palid co-

lour, and remarkably dry. Her tongue was red, dry, and fissured. She had no appetite, but much thirst, and a dysenteric relaxation of her bowels, accompanied with distressing tenesmus. This she attributed to the repeated use of purgative medicine. The pulse was full, and not above 80. She had frequent cough, with scanty frothy expectoration. The impulse and sounds of the heart were normal. Anteriorly the lungs afforded no evidence of disease; but inucons râles, unaccompanied by any musical sounds, were audible all over their posterior aspect, and were particularly intense towards the base. She complained of aching pains about the loins, which extended down the thighs; and for the last two or three weeks she suffered much from cramps in the legs at night. The urine, which was passed frequently and in small quantities, amounting altogether to fifteen ounces in the twenty-four hours, was of a smoky colour, moderately acid reaction, and highly albuminous, upon the application of heat and nitric acid. The specific gravity was 1.012.

I had her cupped over the loins to ten ounces, and a large linseed-meal poultice was afterwards applied to the same situation. She was directed to take ℥iij. Liq: Ammon: Acetat, and $\frac{1}{16}$ gr. of Tartarized Antimony, every four hours. Next day a large blister was applied in place of the linseed-meal poultice. A prodigious amount of serum was carried off by the blister, and in three days from the commencement of this treatment, the irritation of the bowels having quite subsided in the mean-time, I ordered one of the following powders to be taken three times a day:—

Calomelanos, gr. $\frac{1}{2}$.
Antim: Tart: gr. $\frac{1}{4}$.
Ipecac: Comp: gr. iij.—M.

Animal food and stimulants of all sorts were, at the same time, strictly interdicted, and a vapour-bath was directed to be taken every third night.

At the expiration of a week her mouth became affected, her gums slightly swollen, and her throat sore. At this period she had taken twenty-four powders; all her symptoms were remarkably ameliorated; the cough ceased to be troublesome; the skin became soft and perspirable; and the urine increased greatly in quantity, though it was still of about the same specific gravity. I continued the mercury, in reduced quantity, for about ten days longer, giving just enough to keep up a slight mercurial influence. The vapour-bath, hastily constructed with a chair, a blanket, and an India-rubber cloak, was also continued, as it afforded much comfort. Suffice it to say, that at the expiration of four weeks from the commencement of this treatment she was convalescent. The cough and every trace of the anasarca had disappeared; her urine had increased to 28 oz. in the twenty-four hours, with a specific gravity of 1.014. She was ordered one grain of quinine dissolved in an ounce of infusion of quassia, with five minims of

muriated tincture of iron, three times a day; was comfortably clothed in flannel, and soon after sent to the sea-side, where she changed the vapour for a tepid salt-water bath. She has since enjoyed excellent health, with but few interruptions.

ARDEE UNION WORKHOUSE.

CASE OF SYME'S AMPUTATION IN A WOMAN AGED SIXTY.

By F. ODEVAINE, L.R.C.S.I.,

Medical Officer to the Workhouse.

B. R., æt. 60, has been an inmate of the house for more than six years, during which time she has been confined to bed with scrofulous disease of the right foot, which is somewhat cedematous, red, and presents many small openings, which give exit to a thin puriform fluid. A probe passed through any of these detects diseased bone.

The patient being very anxious to have the foot removed, and seeing that the disease seemed confined solely to the tarsus, as also that her general health was good, I thought it a fair case to try the operation recommended by Mr. Syme.

The patient having been placed under the influence of chloroform, the circulation was commanded by a tourniquet placed over the knee. I commenced by inserting the point of a catlin below and slightly anterior to the external malleolus, continuing the incision to a point exactly opposite, across the sole of the foot, and down to the bone; I then joined the extremities of this first incision, by one continued in front of the joint; with a scalpel I carefully dissected back the skin from the heel, keeping close to the bone; the articulation was then opened, the lateral ligaments divided; also the tendo-Achillis and the foot separated.

I found the tibia diseased higher up than I at first had reason to suspect; and having dissected the surrounding tissues from the bones, I saw the latter about two inches from their lower extremity. The anterior and posterior tibials being next tied, and some small pieces of bone which had separated from the diseased os-calcis, and which adhered to the lower part of the wound, being removed, the flaps were approximated by a single suture, supported by a narrow strip of adhesive plaster.

Two hours after the operation hæmorrhage took place, which was controlled to a great extent by pressure on the femoral artery; but an oozing still continued, notwithstanding the elevation of the limb, and the application of cold; I was therefore obliged to open up the stump, which was found full of clotted blood; this being removed, several small vessels were seen to bleed; these were with some difficulty secured, the wound was again closed as before, and no further hæmorrhage took place. From this period the case progressed

favourably, and the wound was completely healed in about ten weeks.

It is now a year and a-half since the performance of the operation. The line of incision looks forwards, and a little downwards; and I do not think there has been any retraction of the skin which forms the bulbous extremity of the stump, and upon which the patient rests.

The above was a case which, from the age of the patient, gave me reason to fear that there would have been sloughing of the under flap, but such was not the case; on the contrary, everything progressed to a favourable termination.

Proceedings of Societies.

PATHOLOGICAL SOCIETY OF DUBLIN.

At one of the last meetings Dr. LYONS made the following communication on

Dissecting Aneurism of the Aorta.

The specimen I have to exhibit to day is one of which I can only speak from the *post-mortem* appearances. It was taken from the body of a man who was brought, if not dead, in a condition next to death, into Jervis-street Hospital, a few days ago. He had been in a dram-shop, and, I believe, either was in the act of taking a dram, or had just taken one, when he suddenly fell, and expired in a few minutes. I saw the body the next day; the surface was exceedingly pale and blanched, and it struck me that the case was very like several I had seen before, in which there had been internal hæmorrhage; and I suggested at the time, that in all probability death had taken place from the rupture of an aneurism.

On examination, we found that there was a small dissecting aneurism of the aorta, at a short distance above the sigmoid valves. On viewing the aorta from within, there was observed an extremely large horizontal rent, extending round nearly two-thirds of the circumference of the vessel. The sac formed by the dissection of the external coat from the middle was not of a very considerable size. Rupture had taken place into the pericardium, and a quart, or perhaps more, of blood, was removed from the pericardium. Few particulars could be learned with regard to the history of this case. It appeared that the man, who was, probably, about 45 or 50 years of age, had, three years previously, got a heavy blow upon the chest, from the fall of a baulk or beam of timber. He did not suffer much at the time, but at repeated intervals subsequently he complained of great distress and pain, referable to the præcordial region; and his wife mentioned, that he was in the habit of relieving this pain by making pressure on the angle of a table, or any other projecting surface. It is well known, that in the history of a great many cases of thoracic aneurism, the occurrence of an injury of the chest,

by the falling of a heavy weight upon it, at some time antecedent to the occurrence of the aneurism, has been very commonly recorded; many such incidents are to be found mentioned in the history of cases presented to this Society.

Dr. L. observed, that it would be a question, in this instance, whether the remarkable rupture presented in the aortic walls, extending to nearly two-thirds of the calibre of the vessel, was caused by the fall of the baulk of timber on the chest. There was a considerable amount of atheromatous deposit throughout the vessels, commencing at the line of the valves. On closely examining the edges of this fissure, they seem to have corresponded pretty accurately. Some projecting little processes of the internal coat, on the lower border of the fissure, appeared to correspond with similar ones on the upper.

It would be a very singular thing if such a rupture as this could take place three years antecedent to death, and that the aneurism should be of the limited size actually presented. The aneurism, it is true, had taken place in that part of the vessel which is protected, not only by its own coat, but by the reflection of the pericardium upon it. There is no indication of there having been any lesion of the valves produced in this instance, and they seem to be in a healthy condition. Dr. L. did not say they were in a perfectly healthy condition, for he thought that they were somewhat enlarged; and this was a point to which he would direct attention—the manifest enlargement of the semilunar valves of the aorta, in certain cases. It seemed, he thought, to be a kind of provision to meet that condition of dilatation of the whole calibre of the vessel, that is sometimes met with in the diseased states of the vessel. Whether such a thing is possible may be matter of speculation; but it appeared to Dr. L., in some instances of aneurism that he had examined recently with much care, that there had been a considerable enlargement of the semilunar valves. In this instance the valves were, he thought—to ordinary appearances at all events—considerably larger than in the normal condition.

It was remarkable that death appeared to have been nearly instantaneous in this case. It was known that aneurism need not be necessarily fatal from the rupture of the sac, and discharge of a considerable quantity of blood into internal cavities. He had no doubt the Vice-President in the chair (Dr. Lees) would have in his recollection the remarkable case witnessed by him and Dr. L., in which a rupture took place of an abdominal aneurism into the left pleural sac, and in which a vast quantity of blood was effused into that cavity, giving rise to extensive dulness on percussion, as high as the third rib. The person lived through that hæmorrhage, which must have been to a very large extent; and subsequently there resulted a second hæmorrhage, in which the aneurism made its way, by a second distinct opening, into the

same pleural cavity; that first opening having taken place in the same wing of the diaphragm, at a distance of about two inches from the second. But in the case immediately in question, effusion of such a large quantity of blood into the pericardium probably led to pressure upon the heart itself; and the physical impossibility of its contraction taking place with sufficient force to enable it to carry on the circulation. Cases of dissecting aneurism have very considerable interest, especially in connexion with the very remarkable one that was presented, during last session, by Professor Smith, and which occurred in the case of a gentleman eminent in science—the late Professor Ball. It was singular that, in the case now exhibited, the dissection had not proceeded to a higher point than it did, supposing the origin of the case to have been at the time mentioned—namely, about three years before death. The point to which the detachment of the coats reaches seems pretty well defined; and it does not appear that the dissection was travelling up with any considerable degree of rapidity. There was a line of construction on the aorta externally, which seemed the limit to which the dissection had extended. The rupture of the sac is itself remarkable; it has not taken place as if it were the result of the gradual process of thinning that we constantly see; but it appears as if a sudden rent to a very large extent was instantaneously caused. It is not known that the person was, at the time, making any unusual exertion, and it is not known, consequently, whether unusual exertion had anything to say to the immediate causation of the fatal hæmorrhage. Now, the question must arise, whether there was any possibility of diagnosing such a case as this during life. Dr. L. confessed that he saw very great difficulties, indeed, with respect to the diagnosis of such a case. The tumor was not of that size that it would cause any remarkable phenomena from interference with sonority; nor, again, is it of that size which would cause it to interfere with the functions of the intra-thoracic organs, and give rise to the phenomena of eccentric pressure. It must also be a question, whether it was capable of giving such abnormal sounds as would enable us, on minute stethoscopic examination, to diagnose that abnormal motions or sounds, probably those of aneurism, were present.

Malignant Disease of the Urinary Organs.

By DR. FLEMING, F.R.C.S.I.

DR. FLEMING said, that amongst the diseases of the urinary organs which the surgeon had to encounter, cancer or malignant disease constituted a very important class for investigation. From the list of those cases which had passed under his observation he selected two, the details of which were not without some practical value. The first

occurred in a man of the name of Cahill, aged 53 years. He was a farmer, and in tolerably comfortable circumstances. He was admitted into hospital almost moribund, and lived for about a fortnight afterwards. The origin of his disease was traceable to a period distant about four months, and the first symptoms indicating its presence were, irritable bladder, hæmaturia, and most painful dysuria. Eight or ten years previously this man had been the subject of stricture of the urethra, and had been treated by caustics in hospital, with, as he stated, permanent relief. His present illness was sudden in its onset, was not specially attributable to any cause, and in its progress was most agonizing and rapid, all his sufferings having been referred to the urinary organs. The bladder was intolerant of the presence of urine, the quantity passed at each time being small, and its quality most offensive. He complained of pains shooting in different directions, sometimes confined to the hypogastric region, at other times extending along the perineum, to the glans penis, and again shooting towards the sacrum. There were also occasional paroxysmal attacks of painful tenesmus. His general aspect was most morbid: his countenance was sallow; his whole frame was emaciated; his extremities were cedematous, and his prostration was extreme. Such was the condition of this poor man when he applied at the hospital.

On examining the hypogastrium, a solid resistant projecting mass was discernible in the region of the bladder. In the rectum the prostate gland was found somewhat fuller than natural; and on passing the finger beyond it, an irregular hardened tumor was felt, which, when poised up, and pressed against the finger of the opposite hand, above the pubis, communicated the sensation as if one continuous growth was impacted between the rectum and bladder. A catheter introduced into the bladder gave excruciating pain when it reached it, yet, notwithstanding, his cries for its continued use were almost incessant. Its presence in the bladder could not be tolerated for a moment. Its facility of introduction was very uncertain; at one time it entered without any interruption; again it required no small amount of manipulation to guide it; and again it did not appear to reach the bladder satisfactorily. On no occasion did more than an ounce or so of urine escape; it was horribly fœtid, loaded with blood and mucus and phosphates. No treatment gave relief; the stomach became uncontrollably irritable, the rectum equally so; food of every description was loathed; and, under the most extreme agony and exhaustion, death occurred.

Dr. Fleming said, that in the drawings exhibited to the Society a most faithful delineation was given of the morbid conditions found. The penis and bladder were removed in their natural connexions, and on opening the bladder, it could hardly be said that any cavity existed within;

such as it was, contained about an ounce of the same description of urine above noted; neither was it capable of distension, its posterior wall, from the prostate to the upper fundus, being transformed into a thick encephaloid mass, intermixed with a sort of schirrhoid material, of considerable thickness, principally deposited in the submucous connective tissue, and throwing forward into irregularly nodulated eminences the inner surface of the bladder, and forming so many projections into it, covered with dark congested mucous membrane. The prostate gland was not involved in this, but immediately behind its base a cross-bar of the same diseased structure stood forward, which is well shown in the drawing, and would tend to explain the difficulties experienced in the introduction of catheters, the commencement of false passages being obvious in the prostatic portion of the urethra. The irregular tumor felt behind the prostate consisted of the vesiculæ seminales converted into the same malignant disease, and consolidated in the centre, the one with the other, and so identified with the general mass of disease. The prelumbar and mesenteric glands were all diseased, and matted together; and the liver (as is seen in the drawing, where a section of it has been introduced) was studded throughout with encephaloid deposits.

The second case exhibited this cancerous disease of the urinary organs in a still more aggravated and complicated form; it was that of Michael Ronan, aged between 45 and 50 years. He was admitted into hospital in May last, and was under observation until his death, in July. He was a gardener by trade, and always enjoyed excellent health. His illness commenced about two years back, and was attributed by him to retaining his urine for too long a period after he had a desire to pass it. His first symptoms were irritable bladder, subsequently followed by hematuria, and ultimately attended with excessive pain during and after micturition. Whilst under dispensary treatment these symptoms somewhat intermitted, but never completely disappeared. The attacks of hematuria became more and more frequent, micturition more and more painful; so that at last he was forced to seek admission into hospital. Both previous and subsequent to his admission he was sounded for stone; and although Dr. Fleming occasionally had the sensation as if one was in the bladder, yet it was only passing and equivocal. No matter how gently used, the introduction of instruments into the bladder was always most painful, and was always followed by most severe hematuria; however, they were often demanded by the patient, from the feeling that his symptoms were relieved by them. The case now progressed more and more unfavourably; every symptom increased in intensity; the general health broke up; and rapid emaciation supervened. About this period the abdomen was so lank, that the bladder, or a tumor corresponding to it, could be felt above the

pubis, as a hard, resisting, solid ball; and through the rectum a large tumor was equally easily discernible beyond the prostate, giving considerable resistance when pressed against. Agonizing and lancinating pains were experienced in the vicinity of both, and throughout the whole pelvis. About this period, also, great pain was complained of in the course of one of the false ribs on the left side, where considerable fulness and tenderness existed, and where some of the physical signs of pleuritis existed. The demands for the catheter by this poor man were at first incessant. Retention and incontinence of urine alternated, and ultimately there was complete incontinence. In the end, no catheter could be tolerated, and he died under the most distressingly protracted sufferings, attenuated to the most extreme degree.

Dr. Fleming remarked that the urine, throughout the progress of this case, underwent many changes; it always contained blood, to a greater or less amount, the appearance of which was influenced by the intensity of acid or alkaline reaction present; for a long time it was acid; then it was of average density and of average amount; and repeatedly, oxalate of lime and lithic acid crystals were visible under the microscope. Ultimately that fluid was persistently alkaline, very fetid, diminished in quantity, and full of mucus, blood, and phosphates.

The morbid appearances present in this case Dr. Fleming considered peculiarly interesting and instructive. He had them intentionally delineated on the same chart, where he exhibited the bladder in two distinct sections; the kidneys in the same; a portion of the liver, and one of the false ribs (the seat of the pain noted) were also shown—all being involved in encephaloid cancer.

The two sections of the bladder show remarkably well the situation of the morbid deposit in its walls, and its special effects on the capacity of that viscus. On slitting it in front, from the neck to the fundus, the coats yielded so very slightly, that it was necessary to remove an elliptical portion in order fairly to expose the very limited cavity within. The small quantity of urine it contained had all the character noted above, and a small calculus, about the size of a garden-pea, floated in it. It was friable and phosphatic. The mucous lining was dark, and in part abraded, but yet free from any absolute ulceration. It exhibited that nodulated appearance so often associated with tuberiform encephaloid growth developed in submucous tissue. This growth was particularly marked in the back wall of the bladder, and towards its base, where it had reached, as shown by the sketch of a vertical section through its central half, a thickness of nearly two inches. Here the tumor felt through the rectum was fully identified with it, and appeared to be the transformed vesiculæ seminales, the prostate gland remaining sound and detached. This whole structure, Dr. Fleming remarked, was so dense and un-

yielding, that even by firm compression the urine which remained in the bladder could not be emptied out. Both kidneys were diseased; that exhibited in the drawing is not alone hypertrophied, but is infiltrated throughout with encephaloid matter, as seen in its section. The liver was also full of detached cerebriiform deposits, of different sizes. The rib presented an excellent specimen of the same disease, the bone lying broken in this morbid mass.

Dr. Fleming said that it was unnecessary to trespass on the time of the Society with any remarks, as so many details were entered into in the report of the cases given. Moreover, the subject of "Cancer of the Bladder," both in its primary and in its secondary forms, had been brought under notice on former occasions, by many of its members—by Dr. Hutton, by Dr. Banks, and by Dr. Hamilton. "Cancer of the Kidney" was also noticed by them; and during the present session a very interesting case of it was brought forward by Dr. Nolan, as occurring in a child. The present communication, perhaps, possessed more than a passing interest, from the fact that both cases given were cases of primary cancer, and that, in the second, the conjoint implication of the kidneys in the disease, was novel. That the disease should also manifest itself in the osseous system, in the absence of any mammary affection, was also remarkable, though not new to the Society, as Dr. Fleming had already exhibited specimens illustrative of it.

As regarded the diagnosis of this disease, Dr. Fleming did not wish to occupy further the time of the Society. In all such cases as in those given, hæmaturia constituted a very characteristic symptom, and was generally so prominent a symptom, that it could hardly escape special attention. Rapidly advancing emaciation is another important item to be borne in mind, apart from many other important considerations. The presence of a tumor in the hypogastrium—its peculiar character—its association with that of one in, or rather towards, the rectum, and totally apart from the prostate—demand attention in forming a differential diagnosis as regards cancer of the bladder; and although no more than alleviation of suffering can be contemplated by the surgeon, he can yet learn, by reflecting on the pathological changes which may be effected by this frightful disease, not to add to the misery of his patient.

Hospital Notes.

RICHMOND, WHITWORTH, AND HARD- WICKE HOSPITALS.

During the last fortnight, several cases of interest have occurred in the House of Industry Hospitals; some of these will hereafter, we hope, be published in detail, so that a very passing notice will at present suffice.

Amputation of the Lower Jaw for Benign Osteo- sarcoma.

On Wednesday, July 7th, Dr. Hutton, in the Richmond Hospital, removed a great portion of a lower jaw affected with *benign osteosarcoma*, from a boy about 16 years of age. The first incision was made through the lower lip, commencing a little nearer to the middle line than the left commissure of the lip. The chain-saw was then introduced close behind the arch of the lower jaw; a double-grooved wedge, with a strong handle attached, introduced between the molar teeth of the left side, served the double purpose of fixing the jaw and keeping the mouth sufficiently open, and thus greatly facilitated the action of the chain-saw. The second incision was made, as usual, a little above the base of the jaw, and on turning back the flap, only one vessel required to be ligatured. The portion of bone removed extended from the angle of the jaw on the right side, as far as the first bicuspid on the left side.

The disease was of one year's growth; originated from a blow received from a cow's horn, on the jaw, about eighteen months ago. For the last four months it has been enlarging rapidly. There was not any glandular enlargement. The case has since progressed most satisfactorily.

Amputation for Scrofulous Disease of the Knee Joint.

On the same day Mr. Adams amputated above the knee, for scrofulous disease of the joint. The patient was about 20 years of age, and the disease originated in a fall on the knee about three and a half years ago. This was followed by an attack of sub-acute inflammation, and from which the joint, evidently, was never allowed to recover perfectly. As soon as the patient obtained any relief from pain, he again used it; and in this way he continued to walk, more or less, till last November, when another attack of inflammation required him to be admitted into a County Infirmary. The disease had now advanced considerably, for displacement of the head of tibia took place; still he partially recovered, and was able to move about until the middle of June, when he was admitted into the Richmond Hospital. The knee-joint was now completely disorganized; the synovial capsule was full of fluid; the muscles wasted, and the bones apparently enlarged; and abscesses surrounded and invaded the joint. Still attempts were made to keep up his strength, slowly evacuate the abscesses, and produce ankylosis of the joint; but the supervention of more severe hectic symptoms rendered amputation necessary. The amputation itself does not call for any special remarks, and the patient has had no bad symptom since.

Removal of a Testis for Fungus Hæmatodes.

Mr. Hamilton removed a large fungoid testicle. The patient was a man about 40 years of age, strong and healthy-looking. Three years ago he dislocated the left hip, and during the efforts at

reduction the left testicle was hurt. It swelled and got hard, but did not change much for the first twelve months, at the end of which time it swelled considerably, and was rather painful. The pain ceased, but the increase in size continued to the present time, when it is larger than a cocoa-nut; the scrotum of a dull red colour, and permeated by small veins. The tumor has a hard elastic feel, and is very heavy; at the upper part soft and fluctuating from the presence of fluid; and when an exploratory puncture was made, some transparent yellow fluid (about four ounces) was withdrawn. But this was evidently from a separate cyst, as the bulk of the fluctuating part of the testicle was only moderately diminished by the operation.

Mr. Hamilton anticipated some difficulty in the operation, from the presence of one of these cysts in the chord, and also from the existence of a small hernia. He made an incision from the external ring down to the lower part of the scrotum, and rapidly dissected out the testicle. This was easily done. The chord was with more difficulty isolated, in consequence of the cyst; when it was so, it was held tightly by a forceps, and the division of the chord completed below the forceps; but the sudden escape of the serous contents of the cyst caused the chord to slip from the forceps upwards—an accident which, as is usual in such cases, caused much difficulty in securing the artery of the vas deferens, which bled very freely. At length the lower part of the inguinal canal was slit up, and the whole chord tied, when the bleeding ceased. Small pledgets of lint, wet with muriate tincture of iron, were applied for some oozing.

A section of the removed testicle showed it to be fungus hæmatodes, in the situation of the epididymis; it was of a pale bluish-gray, and blood-shot. The body of the testicle divided in lobules, some with cerebriform contents; others a yellow, shreddy, broken-up substance, of unusual appearance. The cavity of the tunica vaginalis was obliterated by adhesions. At the upper part of the testicle and chord were cysts containing serous fluid, and lined by a small membrane. He has gone on well since the operation.

*Delirium Tremens.—Suicidal Wound of Throat.—
Wound of Larynx, followed by Edema of the Glottis.*

Into the Hardwicke Hospital, about ten days ago, a case of delirium tremens was admitted. The subject of it was a very unhealthy-looking anæmic man, about 50 years of age, with a greatly deformed thorax. The delirium was not attended with any violent or maniacal excitement, and the case was apparently progressing favourably, when, late in the evening (9 o'clock, p.m.) he suddenly started up, broke a pane of glass in the window over his bed, and with the broken glass gave himself an extensive wound in the throat. All this occupied less than a minute. The patient in the bed opposite to him saw him start up, and he

rushed across the ward to prevent him, but was too late. The wound across the throat was five inches long, and internally it passed exactly into the crico-thyroid space, which it divided freely. There was no large vessel wounded, and the application of infusion of matico soon stopped all hæmorrhage. He died in less than forty-eight hours after the suicidal wound. For about thirty-six hours he seemed to be progressing favourably, when he suddenly began to sink, and died comatose.

Post-mortem examination showed slight congestion of the brain and its pia mater, with slight opacity of the arachnoid, and slight serous effusion beneath it.

There were in the lungs five well-marked nodules of pulmonary apoplexy, affecting different portions of them. The trachea and bronchial tubes were rather paler than they are usually found; but on examining the upper part of the larynx, the rima glottidis was found to be completely closed by effusion into its submucous cellular tissue. The wound into the crico-thyroid space was so large that the oedema of the glottis could not have affected the passage of air into the lungs; but its occurrence as a consequence of wounds of the larynx should be borne in mind, inasmuch as if the laryngeal wound be not sufficiently large for the purposes of respiration, the operation of tracheotomy may be afterwards required. It is now several years since Mr. Adams, in a very valuable communication to the Pathological Society, on the subject of oedema of the glottis, adduced a remarkable instance of this fact. The case is briefly noted as follows in the published Reports of the Society:—

"Edema of the Glottis, following an attempt at suicide, in which the larynx was divided. Tracheotomy subsequently performed.—Mr. Adams laid before the Society the larynx of an individual who attempted to destroy himself by cutting his throat. Thirteen days after the infliction of the injury, which was of the lower part of the larynx, he was attacked with oedema of the glottis, and his symptoms became so urgent, that Mr. O'Reilly, in consultation with Mr. Adams, determined upon opening the trachea. The operation was difficult, from the natural shortness of the neck, and its turgescence from dyspnoea. The perforation of the trachea was performed by Mr. O'Reilly with the chain trocar, an instrument to the value of which Mr. Adams would bear the fullest testimony. The canula was allowed to remain in the trachea, and the patient survived the operation thirteen days, when death took place, partly from exhaustion, and partly from inflammation of the bronchial mucous membrane. Mr. Adams exhibited the preparation, with drawings of the recent appearances. The lining membrane of the larynx and trachea presented an intensely vascular appearance, and the rima was still greatly narrowed by the sub-mucous infiltration."

UNIVERSITY OF DUBLIN.
TRINITY COLLEGE.

EXAMINATION FOR DEGREE OF M.B.,

TRINITY, 1888.

PRACTICE OF MEDICINE.—DR. STOKES.

1. In the treatment of intermittent fever by bark or other specifics, how far does the length of the apyrexial period affect the success of the remedies?
2. What local secondary lesion is most frequently found in connexion with the softening of the heart in typhus?
3. Give the history and diagnosis of the loose kidney.
4. Explain the term "Pathological Transformation."
5. Give familiar examples of encephaloid, calcareous, and adipose pathological transformations.
6. A form of pulmonary sphenelusus has been described as a result of caries of the temporal bone.
7. In cases of solitary kidney, what is the condition of the suprarenal capsules?

INSTITUTES OF MEDICINE.—DR. LAW.

1. Wherein consists the remarkable change that has occurred in practical medicine in latter years?
2. Is our increased pathological knowledge sufficient explanation of this change?
3. What is the reason why individuals affected with emphysema of the lungs require localities so various, and some opposite, in their eudiometrical conditions?
4. The causes of disease being either physical or moral, which are the chief physical morbid causes?
5. What are the diseases that chiefly depend upon moral causes?
6. Does dropsy hasten or retard the fatal termination in albuminuria?

PRACTICE OF MEDICINE.—PROFESSOR BARKS.

1. The causes, the symptoms, the pathology, and the treatment of gangrene of the lung?
2. The symptoms of hepatic colic?
3. The causes which induce "Anæmia"?
4. The character of the blood in the advanced stages of Bright's disease?
5. The therapeutic indications in Lithi-uria?

MATERIA MEDICA.—DR. OSBORNE.

1. In the class of bitters and tonics, what articles contain the greatest amount of tannic acid, and in what is it entirely absent?
2. In the case of sulphureous waters, how is it determined whether the impregnation is derived from decomposed organized matter?
3. Required the peculiarities of cod-liver oil, as contrasted with those of other fixed oils.
4. Required the peculiarities of oil of turpentine, as contrasted with other volatile oils.
5. Required the adulterations of hydriodate of potash, and the means of detection.
6. Prescribe for a case of hysterical anæmia and amenorrhœa, accompanied by torpor of the bowels.

ANATOMY AND PHYSIOLOGY.—DR. SMITH.

1. Describe the relations of the thoracic duct in the abdomen, thorax, and neck. In what operations is it endangered?
2. Give a full description of the superior constrictor of the pharynx, and enumerate the nerves subservient to the process of deglutition.
3. Mention the facts derived from human, comparative, and morbid anatomy, that have been adduced to prove that the liver assists the lungs in the process of decarbonization of the blood.

4. Describe the sphenopalatine ganglion and its branches. Mention the structure of nervous ganglia.
5. Contrast the spinal column in man with that of birds and fishes.
6. Enumerate the openings seen upon the walls of the tympanum.

MEDICAL JURISPRUDENCE.—DR. BRADY.

Five of the following questions to be answered:—

1. What are the means for determining whether death is real or only apparent?
2. Describe the symptoms that precede the state of insensibility produced by exposure to intense cold.
3. How would you treat this form of apparent death?
4. What treatment would you employ in asphyxia from the fumes of burning charcoal?
5. Contrast the characters of vital and post-mortem incised wounds.
6. State the symptomatic criterions by which narcotic poisoning may often be distinguished from apoplexy.
7. State the tests for morphia, and for meconic acid, and the objections that may be made to their validity.
8. Describe the process you would employ to obtain these substances from a compound mixture containing laudanum.
9. How would you determine the presence of nitric acid in a diluted state?
10. Describe the post-mortem appearances in poisoning by this acid.
11. Give a definition of what is called moral mania.
12. What is the legal meaning of the phrase "unsoundness of mind"?

SURGERY.—DR. SMITH.

1. Mention the characteristic signs of rickets, before deformity occurs; and describe the effects of the disease on the osseous system.
2. Enumerate the signs and symptoms when a foreign body is lodged in the right bronchus. Who first employed the stethoscope to detect foreign bodies in the air-passages? Is the stridor in these cases the same as that heard in croup? Mention the dangers attending laryngotomy and tracheotomy.
3. What are the cases in which it is necessary to make an artificial pupil? Describe the different methods of forming it, and state the circumstances which contraindicate the operation.
4. Mention the leading symptoms of rupture of the urinary bladder; the usual situation of the rupture; the circumstances under which it is likely to happen; and the treatment proper in such cases.
5. Give a general account of the symptoms and principles of treatment in cases of wounds of the substance of the lungs.

BOTANY.—DR. HARVEY.

1. State the differences in structure between a seed and a spore.
2. Contrast the inflorescence of the fig and the mulberry.
3. What is meant by the terms—adnate, innate, versatile; extrorse and introrse, as applied to anthers?
4. What Natural Order is synonymous with the Linnean class and order, Didynamia Gymnospermia; and what are its properties?
5. In what natural orders do gynandrous stamens occur?
6. Give the diagnostic characters of any three or more of the undermentioned natural orders, adding briefly the medical or other properties of the chief useful plants in the orders you select:—Ranunculacem, Papaveracem, Cruciferum, Rosacem, Cucurbitacem, Cinchonacem, Solanacem, Polygonacem, Palmæ, Melanthacem, Liliacem, Amaryllidæ.

CHEMISTRY.—DR. APJOHN.

1. If a pound of snow, at the temperature of 20°, be

thrown into an imperial gallon of water at 80°, what will be the temperature of the mixture—140° being assumed as the caloric of liquidity of ice?

2. State what is meant by the dew point, and explain Daniel's method of determining it by direct experiment.

3. How would you give an insulated conductor a positive electric charge, on the principle of induction?

4. Describe the batteries of Daniel and of Grove, and specify the advantages which result from the amalgamation of the zinc plates, and the use of the second liquid.

5. Give, in symbols, the action of oil of vitriol on sal ammoniac; and state how much chloride of sodium must be employed, in order that the hydrochloric acid gas it yields, when conducted into ten cubic inches of water, shall give a solution having the strength of the *acidum muriaticum purum* of the Dublin Pharmacopœia?

6. State and explain the common mode of obtaining chlorine gas, and the action which it exerts on water of ammonia, upon slaked lime, and upon a strong solution of caustic potash.

7. Write the formulæ of methylic, ethylic, and amyllic alcohols, and of the acids into which they admit of being converted by oxidation.

8. Give, in symbols, an explanation of the process of the Dublin Pharmacopœia for making hydrocyanic acid, and account for the fact of the actual being less than the theoretic product.

9. How, by means of a solution of caustic potash, would you convert iodine into iodide of potassium; and how would you test the resulting salt for iodate of potash?

10. State the composition of urea, the best mode of forming it artificially, and the decomposition it experiences in urine which is subjected to distillation.

Selections from British & Foreign Journals.

AMPUTATION OF LIMBS BY EXTEMPO- RANEOUS SURGERY.

The celebrated French surgeon, Maisonneuve, has been led, by his investigations relative to the development of suppurative phlebitis, to the amputation of limbs by a new process.

"In these investigations," says Dr. Maisonneuve, "a fact forcibly struck my attention. In the various sorts of solution of continuity to which our tissues are liable, that of wounds by sharp instruments enjoys, in the highest degree, the sad privilege of inducing phlebitis; while solutions of continuity occasioned by rending, cauterization, ligature, and also subcutaneous wounds, are almost entirely exempt from it. Thus we see that, by a sort of tacit agreement, surgeons have generally relinquished the knife, in operations practised on the veins, to resort to caustics and ligature.

"On the other hand, when we take a retrospective view of the practice of the great operators, we cannot fail to be impressed with the fact, so long considered paradoxical, that the surgeons considered the most skilful in the use of the knife were, at the same time, the most unfortunate in the results of their operations. In reality, these skilful operators were partial on all occasions to the use of the knife; while other operators, perhaps less dexterous and less brilliant, more wil-

lingly resorted to ligature, caustics, or, indeed, to instruments which, like scissors, contuse the textures as they divide them.

"I had long been deeply impressed with that fact, although my mind had not been completely enlightened with respect to it. Experience had by degrees so far led me to it, as to induce me, in operations other than the amputation of the limbs, scarcely at all to use the knife, except to cut the skin. My fingers almost always suffice to enucleate a tumor, rend its vascular or nervous attachments, and even, in certain cases, lacinate the muscular or ligamentous fibres; or even, when fibrous or tough textures present too great a resistance, I cut them with scissors.

"The end I proposed to myself by thus substituting rending to dissection, was, at first, to render the operation easier and safer, on the one hand, by preventing the hæmorrhage of the minor vessels; on the other hand, by admitting of the operation being performed in the vicinity of the large vascular or nervous trunks, without liability to wounding them. I have thus, in many circumstances, been enabled to carry on to a successful issue operations apparently impracticable—such as the extirpation of deep tumors in the neck, the arm-pit, the pharynx, and certain others deemed most difficult or dangerous, have been happily terminated with singular promptitude and facility.

"But I soon perceived that this method of rending, substituted for the knife, did not present the sole advantage of rendering operations easier and safer. I further ascertained, not without some astonishment, that it exempted the patient from the greater part of traumatic accidents, and especially from purulent infection."

This remark led Mr. Maisonneuve to ascribe the cause of purulent infection to the nature of the wounds inflicted by a sharp instrument, which leaves wide open the orifices of the arterial and venous vessels. When the wound is invaded by inflammation, the veins, which are protected at most by a thin coagulum, do not fail to participate in it; and if anything should excite our surprise, it is not the frequency of phlebitis, but rather its infrequency; for in such circumstances it would seem that the veins should constantly participate in the inflammation.

At all events, that gentleman is convinced that if the surgeon succeeded in amputating a limb otherwise than with a sharp instrument, development of phlebitis would be prevented; and that idea has induced him to adopt a mode of operation which he has several times practised, with constant success.

The apparatus he uses is composed of two instruments; the former, to which he has given the appellation of *osteoclast*, is intended to break the bones, for in this process the bones must be divided before the soft parts. It is a species of ligature-tightener composed of a thick screw, the lower end of which supports two strong hooks, and the

upper end of which has an aperture for the reception of a transversal lever. Two large steel rods serve as a support to this screw, and a steel crescent, suspended by a chain of five or six rings, is hooked on to the lower extremity of the screw.

In amputations, the limb must first be clasped in the steel crescent, which is applied to its posterior surface, on a level with the point at which the bone is to be broken. On the anterior surface of the limb are placed two wooden supports, and upon them a steel rod, upon which the screw reposes. The astriction is then proceeded with: the chain tightens; the crescent raises the bone, which, being dragged out of its perpendicular upon the two supports, breaks transversely with a sharp sound.

This part of the operation over, the osteoclast is removed, and the soft parts are divided. This is effected by surrounding the limb, at about four or six breadths of the finger below the fracture, with one of Graefie's large ligature-tighteners, until the ligature, which is formed of a metallic cord, is arrested in its progress by the resistance of the bone. The knife is then applied, at an inch or an inch and a half below the ligature, and the soft parts are cut to the bone. Then slackening somewhat the astriction, the operator seizes the lower part of the limb, and gives it a rotatory motion on its axis, to effect the rending. When at length the limb is detached, the cutting of the flesh clasped by the ligature is finished by carrying the astriction to its extreme limit.

When the operation is practised with proper slowness, the wound resulting from it does not allow a drop of blood to escape, and the patient can be immediately conveyed to his bed. The dressings are those of contused wounds, and present no peculiarity.

Mr. Maisonneuve has operated in this manner on six persons; five of these operations were amputations of the leg, and one of the fore-arm; all six with the best possible result, and none of the patients died.

It is useless to state that all these patients were under the influence of chloroform, and that they were unconscious of pain.—*Journal of Practical Medicine and Surgery.*

CASE OF COMPOUND DISLOCATION OF THE THUMB.

By M. NELATON.

Dislocation of the first phalanx of the thumb from the second is an injury which recurs with a considerable degree of uniformity. In the present case the patient was a man who, being propelled with great violence, fell upon his hand, after fruitless efforts to recover his equilibrium. The muscles, as it will happen when they are deficient in power to resist excessive pressure, gave way. All the soft parts on the side of the palm were torn open in front of the joint, and the head of the phalanx

extruded through the wound caused by the laceration of the skin, the cellular tissue, and the flexor tendons. In this state of things, if the surgeon is summoned in time, the dislocation may be reduced, and the consequences of inflammation averted. The bones having been returned to their place, the external wound closes, the tendons heal, and, generally after a short time, the functions of the thumb are restored. M. Nelaton has even seen flexion return in its full integrity. It is not so, however, when surgical assistance has not been sufficiently prompt; very serious symptoms then set in, and this was the history of the present case. The patient had at first been admitted into another hospital, where fruitless efforts at reduction had been attempted. When he entered Mr. Nelaton's wards, a considerable wound existed on the anterior face of the thumb, at the bottom of which could be distinguished the lower extremity of the dislocated bone. This condition had lasted eighteen days, and such was the rigidity of the soft parts, that all the efforts at reduction had proved unavailing. Mr. Nelaton then recommended these attempts to be discontinued, and to be resumed a little later, after the inhalation of chloroform. This suggestion was adopted, and in the course of the day the articular surfaces were restored to their proper situation. The reduction being effected, the thumb was supported with splints encased with tape; but either from the too great tightness of the bandage, or from the previous inflammation and swelling of the soft parts, which rendered them incapable of bearing even a moderate degree of pressure, a small eschar appeared on the surfaces in contact with the splints. At the same time, in the palm of the hand, inflammation set in, speedily spreading to the fore-arm, where fluctuation shortly showed itself in the lower and anterior portion of the limb.

In incising these abscesses, which almost invariably follow any serious injury of the thumb or little finger, Mr. Nelaton dissents from those practitioners who boldly cut into the purulent collection. This practice may be brilliant, but it is not devoid of danger. The late Professor Blandin thus accidentally perforated the median nerve, and tetanus and death were the consequence. From some peculiarity in the course of the radial artery, that vessel may also be injured during the operation. It is best, in such cases, to proceed in a less bold manner, and to operate as if the ligature of an artery were in contemplation. An incision about two inches in length should be made on the side of the tendon of the palmaris longus, dividing in succession the skin, the subcutaneous cellular layer, and the fascia. The tendons, being thus exposed, are placed in a relaxed position, and separated with the extremity of a conductor. A wide aperture is thus obtained, through which two fingers can be introduced into the abscess, the contents of which find a ready issue.

Mr. Nelaton lays much stress upon the necessity

of giving the incision considerable length, in order to obviate the retention of pus, and the morbid symptoms to which this circumstance might give rise, if the purulent secretions were to become incarcerated by retraction of the tendons. This *modus operandi* affords also the additional advantage of giving the surgeon every facility for taking up any small artery which may happen to be wounded. The Professor applies these precepts, not only to the incision of abscesses of the forearm, but generally also to all operations on deep-seated purulent collections.

In the present instance Nélaton's object was not entirely attained. Fresh abscesses simultaneously formed on the dorsal surface of the carpus and metacarpus, and some apprehension was entertained lest the inflammation should spread to the articulations. A crepitus indicative of denudation of the bones was already perceptible; it was not, however, considered judicious to resort to amputation. It is now universally admitted, in clinical surgery, that the bones thus denuded, after an interval, become protected by the deposition of a cartilaginous or fibrous substance. This favourable termination is to be expected in the present instance. In a fortnight crepitus will have ceased to be discernable, and in six months no trace will be left of the disease for which the patient is at present undergoing treatment.

Admitting that the movements of the joint are not restored, and that ankylosis should result, even in that event, the thumb would still preserve its full power of combined action with the other fingers; and to a labouring man—a carpenter, for instance, like this patient—the importance of this movement to the utility of the hand cannot be over-estimated.—H. CHAILLOU, in *Journal of Practical Medicine and Surgery*.

REMARKS ON VARICOCELE.—ITS DECREASE IN THE ADULT.—ARGUMENTS AGAINST THE OPERATION.—A VERY SIMPLE PALLIATIVE REMEDY.

The radical cure of varicocele has been much spoken of, and the various operations recommended for this end have naturally been grounded on motives borrowed either from the causes or from the consequences of the disease. According to Mr. Nélaton, experience has not in any way sanctioned these motives; and it is time to put an end to the merely theoretical inventions brought forward on the subject of this malady.

It is unnecessary to follow the Professor in his strictures on the opinions expressed on the supposed causes of varicocele. The chief point to be borne in mind on this subject is, that the varicose condition of the veins of the funis coincides with the period of life during which the function of generation is in possession of its greatest activity. Varicocele is a complaint special to the second epoch of youth, and tends to decrease in proportion as the subject advances in years.

Mr. Nélaton being intrusted with the examination of the youths destined to the Imperial Military Schools, found that one or two in every fifty were affected with varicocele. On the other hand, while he was at Bicêtre, out of a population of 5,000 old men, the same surgeon met with scarcely a single case of the same complaint. This fact should not be forgotten.

Another question is deserving of the most serious attention: it is the influence supposed to be exercised by the varicocele upon the anatomical structure and functions of the testis. The testicle corresponding to the varicocele is said to decrease in size and to become atrophied. Wishing to ascertain the truth of this assertion, Mr. Nélaton examined a large number of cases of varicocele, and recognized that, in point of fact, the testis was frequently smaller on the diseased than on the healthy side; but he obtained no proof whatever that such difference in volume was the consequence of the malady. Very few men with healthy organs present perfect uniformity on both sides; it is, therefore, highly probable that in subjects affected with varicocele, the difference of size may have been congenital. The question of mere volume is, besides, of very secondary importance to the patients; that which interests them more directly is, the preservation or diminution of the genital powers. Whether such individuals preserve their local faculties is a point which has not been inquired into, and which it is important to investigate. On examining the many subjects who have sought his advice for varicocele, Mr. Nélaton has acquired the conviction that the disease in no wise impairs the power of reproduction; and that if the testicle has decreased in volume, such decrease must have in all cases been very limited, the function having suffered no diminution in its activity.

Hence the alleged atrophy of the testis does not constitute, for Mr. Nélaton, a sufficient motive to justify any operation. He requires other reasons to resolve upon adopting such a course. The excessive volume of the varicocele is not one of these. Numberless patients are met with, who, notwithstanding the enormous magnitude of the scrotum, take, without much inconvenience, the most violent exercise. Others, on the contrary, suffer extremely from very small varicoceles. It is the presence of tenderness and of pain, carried to such a degree as to interfere with professional avocations, which must be inquired into, whenever the expediency of an operation for the cure of the disease has to be discussed.

With this exception of pain, and of the serious interference of the disease with the daily occupations of the patient, which exclusively points to the necessity of surgical action, Mr. Nélaton refrains from operation; and his reserve is justified by the daily observation of facts which show, as we have above stated, that varicocele is a malady belonging to youth, which has a natural tendency to disappear with advancing years. At this very

moment a case in illustration of this singular phenomenon may be observed in the wards. A man suffering from a cancrroid affection of the bladder was admitted into the hospital. At the same time he was found to bear a varicocele, which has now lasted eight or ten years. It is neither painful nor troublesome; every year its size decreases, and it will, in all probability, soon disappear altogether.

Such cases distinctly point out what should be the practitioner's conduct. It is clear that he must wait, and be satisfied with the use of such palliatives as may diminish the discomfort attendant upon the complaint.

Two years ago, a young man with varicocele entered this hospital. Three years previously pain was complained of in the left inguinal ring; shortly afterwards the scrotum swelled on the same side, and became very tender. A varicocele was recognized, and the patient was operated on at Vitry-le-Francais, with Breschet's forceps, to which was added the loop of Mr. Regnant, of Toulon. Notwithstanding the ability of the operator, and the care bestowed upon the case, the cure was not permanent, and after a lapse of two years this individual presented himself to Mr. Nélaton in the following condition:—The left side of the scrotum, much increased in size, was the seat of venous enlargement. A pediculated hernia, distinct from the varicocele, existed on the same side. The hernia was reduced, and, as a remedial agent of a palliative description, Mr. Nélaton applied to the varicocele Mr. Richard du Cantal's caoutchouc ring.

This apparatus is the inoffensive realization of Sir A. Cooper's idea. The testis and the venous chord being pushed back towards the ring, the dependent portion of the scrotum is enclosed in an elastic belt, which surrounds it like a bracelet. For this purpose a strip of common caoutchouc is prepared, about an inch in width, and of variable length, according to each case. The extremities of this band are cut with scissors, and after having been rolled round the loose scrotum, its ends are made to adhere to each other. This little apparatus, which Mr. Richard du Cantal invented for his own use, has been employed by Mr. Nélaton in several instances, with complete success. It permits the patient to stand, walk, and even exercise violently; its application is perfectly easy; it may therefore be looked upon as a most important palliative agent, which allows the patient to gain time; and even in the worst cases it will always be well to give it a trial, before exposing the subject to the chances of an operation, which, whatever may be the method adopted, is never entirely devoid of peril.—*Journal of Practical Medicine and Surgery.*

CONJUNCTIVAL DIPHtherITIS.

At a meeting of the French Academy of Sciences, on the 28th of June, M. Magne read a memoir on *Croup of the Eyelids, or Conjunctival Diphtheritis.*

He adduced four cases of this disease which he had treated successfully, and concluded the paper with the following resumé:—1. Conjunctival diphtheritis is a disease of an inflammatory nature, like croup. 2. Conjunctival diphtheritis has peculiar characteristics, which prevent its being mistaken for the affection termed *pseudo-membranous ophthalmia*. 3. Conjunctival diphtheritis attacks children in particular. 4. Conjunctival diphtheritis does not appear to be a purely local affection, but seems to be connected with the general health. Moreover, it does not seem prudent to use any form of issue in the treatment of it, inasmuch as they may induce a further complication. 5. Conjunctival diphtheritis does not seem to possess, in general, a contagious character. Without deciding positively on this point, such is, at least, the result of our observations, this affection having never attacked more than the one eye; the other eye (no matter how strict were our directions) being constantly exposed to the contact of the fluid secreted by the diseased conjunctiva. 6. Conjunctival diphtheritis is a very rare and very severe affection, but of a curable nature.

RUPTURE OF THE UTERO-OVARIAN PLEXUS.

At the same sitting M. Puech read an essay on *Rupture of the Utero-Ovarian Plexus*, and the consequent intra-pelvic thrombus. He concluded with the following propositions:—Rupture of the utero-ovarian plexus, whether it occur independent of, or in the course of, uterine or extra-uterine pregnancy, or during or immediately after *accouchement*, has the same causes and the same terminations as thrombus of the vulva. 2. A varicose condition is not necessary for its existence; such a state was noted in four cases, but was absent in a much greater number. 3. If death is not caused by the hæmorrhage, a hypogastric tumor ensues—a bloody cyst, which has the same seat, the same symptoms, the same terminations, as a retro-uterine hæmatocele. 4. To judge from the cases which have been collected from all quarters, of retro-uterine hæmatocele, rupture of the utero-ovarian plexus is the most usual cause, the least dangerous to the female, and, at the same time, that least likely to interfere with the functions of generation. 5. *En résumé.* It is now demonstrated that the hæmorrhage which precedes, and which may afterwards constitute a hæmatocele, arises from three causes, which, in the order of their frequency and lenience, are as follow:—

- a. Rupture of the utero-ovarian plexus.
- b. Apoplexy of the ovary.
- c. Hæmorrhage from the fallopian tubes.

—*Gazette Médicale.*

ON THE TREATMENT OF STAPHYLOMA BY LIGATURE.

At the Congress of Ophthalmologists, at Brussels, Dr. Borelli described his modification of the Celsian procedure. Two long and delicate pins are required,

insect pins answering the purpose well enough. The patient being laid on his back, with his head lying over a pillow, the eyelid is kept raised by an assistant. The surgeon passes first one of the pins through the base of the staphyloma, and then the other, the two crossing each other. Some ligature silk is next passed behind and around the base of the pins, and then tightened upon them, and tied. When the staphyloma is only partial, the tissues may be at once strangulated, though not divided by the thread; but if it is complete or very extensive, we should include only enough of the tumor to secure the remainder being easily covered by the eyelids after cicatrization; and the constriction must be more carefully performed, so that the walls of the tumor be not ruptured. As a general rule, the amount of constriction must be regulated by the tolerance of the cornea for extension. The operation generally causes very little pain, and the inflammatory action which follows is usually but slight. By the third day, on the removal of the cerated charpie, we generally find the pins, ligature, and the strangulated portion of the staphyloma separated. Care is required in renewing the dressing from day to day; but by the eighth day the cicatrix is usually solid enough to resist the pressure of the humours of the eye; and by the twentieth day the patient is ordinarily enabled to resume his usual habits. The ultimate amount of success of the operation will depend upon the extent of the staphyloma, and of that of the portion of the cornea which continues diaphanous beyond the staphyloma; but every variety of opaque staphyloma may be submitted to it, with the view of preserving the globe of the eye entire. Not only is the globe preserved by this means, but its form is rendered more regular, to the diminution of the deformity, and the adaptation of an artificial eye is facilitated. Owing to the extensibility of the cornea, also, the diaphanous portion of this is brought, by means of the ligature, in a better position for the success of any future operation for the re-establishment of vision.

M. Guépin, of Nantes, has put Dr. Borelli's plan into practice, in a very aggravated case, with great success, although penetrating a notable portion of the sclerotics, the iris, ciliary body, and the choroid. In this case, in which the woman was blind in consequence of a preceding iritis, he has now some hopes of restoring partial vision, by means of an operation for artificial pupil.

M. Ancelon has also since performed the same operation for a large and painful staphyloma; and although violent inflammation of the bulb was induced, the eye has been restored to its normal appearance, excepting an albugo at the points of cicatrization. — *Annales d'Oculistique*, and *Medical Times and Gazette*.

TOTAL ABSENCE OF THE IRIS CONSISTENT WITH EXCELLENT SIGHT.

A woman, aged 37, has been attending, under Mr. Dixon's care, at the Ophthalmic Hospital, for some time past, in whom both irides appear to be wholly wanting (irideremia). The reason for her now seeking advice is, that for several years past her sight has been failing, from increasing opacity of the lens, and more latterly from chronic keratitis also. The fact of most interest in her case is, however, that prior to these changes, her sight, contrary to what might have been expected, was perfectly good. She states that she went to school, and learnt to read easily, being able to read the smallest print as well as others could. Even sunlight never annoyed her materially. After leaving school she was able to fulfil all the duties of a domestic servant, and did so for many years. Fourteen years ago, her sight failing so much that she could not do needle-work, she left her place, and has since, until within a few months, gained her livelihood as a charwoman. She is a delicate-looking woman, and says that she has never enjoyed good health. The eyes are small, and she has a habit of keeping nearly the upper half of the cornea always covered by

the lid. At present a diffused opacity of each cornea makes examination by the unassisted eye difficult. There is a white speck on the centre of each lens, and such a peculiar blue-black does the iridal area present, that it might easily be fancied that this speck represented the obliterated pupil, and that a thinned-out and adherent iris were really present. The ophthalmoscope, however, clears up all doubt. It is, by its aid, at once seen, that not a trace of iris exists, as the whole circumference of the cornea is vividly lit up. Streaks of opacity are seen in the lens, and its condition, combined with that of the cornea, are sufficient to prevent the optic entrance and other structures in the fundus of the globe from being clearly seen. Mr. Dixon remarked upon this case, that it seemed to explain why examples of iridetermia are so extremely rare in adults, while they are not unfrequently noticed in children. It would appear, that the sight is such, that no occasion for seeking advice exists. In this instance the woman would never have applied, had it not been for the advancing disease in her lens and cornea. The rationale of the connexion between the existence of the white speck on each lens and the absence of the iris, it is not easy to give. Both are, no doubt, congenital abnormalities. — *Medical Times and Gazette*.

DISPLACEMENT OF THE TESTICLE INTO THE PERINEUM—PLASTIC OPERATION UNSUCCESSFUL—CASTRATION.

Benjamin S., aged 24, was admitted into King's College Hospital on April 30th, under the care of Mr. Partridge, on account of displacement of the left testicle into the perineum. It appeared that he was a soldier in the Horse Artillery two years ago, and that he was thrown forward while riding on to the pommel of the saddle, and received the injury for which he was admitted. He fell from his horse, and vomited for some minutes. Next morning he observed a swelling in the perineum about the size of a hen's egg, and so painful that he could hardly move about. He then went into the military hospital, and was under treatment for about three months, but without benefit; the testicle only gliding further backwards in the perineum till it reached its present position—about an inch in front of the anus. The testicle had diminished in size, and was smaller than the right. The vas deferens could be distinctly felt. He sometimes had difficulty in passing urine; but at others it flowed easily. He was quite unable to work.

May 19th.—An operation was attempted for the purpose of replacing the testicle in its position. The patient was placed in the position for lithotomy; a transverse fold of skin was pinched up over the testicle in the perineum, and divided. A band of fibrous tissue which restrained it (perhaps the remains of the gubernaculum) having been divided, the testicle was pushed up towards, and as much as possible into, the scrotum, and retained in its place by deeply placed subcutaneous sutures, and by a pad and bandage in the perineum.

June 1st.—The wound was gradually healing. The patient complained of pain in the course of the spermatic cord.

June 14th.—It is noted that the testicle had gradually slipped back into its old position, and that the patient feels as much pain there as ever. As it seemed hopeless to attempt again the reduction of the testicle, it was determined to remove it. Accordingly, on June 19th, the patient was again brought under the influence of chloroform, and an incision was made on the spermatic cord. This was then taken up, a ligature placed on it, and the testicle removed. The ligature came away in a few days, and the patient is now convalescent.

The testicle was, we believe, examined after removal, and found atrophied to some extent from pressure and injury, but otherwise healthy.

REMARKS.—We have not met with any other instance of this injury—dislocation, as it may be termed, of the testicle. It is, in fact, one of which it is difficult to

conceive the possibility in a perfectly natural condition of the testicle and its appendages, on the one hand; and of the scrotum, and other soft parts, on the other; and it was on this account that, in this case, some irregularity was suspected in the original conformation of the parts, Mr. Partridge having expressed his opinion that the gubernaculum had had an unusual attachment which predisposed the testicle to pass down below its natural level. One thing seems plain, viz., that the testicle must have been in its usual place just before the accident, otherwise the patient could hardly have done duty as a horse-soldier. The treatment followed was undoubtedly judicious, and would probably, if another such case should occur, be more successful. In this the communication between the scrotum and the perineum appeared to be too free to allow any chance of closing it by operation, and the testicle was producing an amount of misery in its new position which rendered it useless to think of leaving it there.—*British Medical Journal*.

SULPHATE OF IRON AND GLYCERINE IN ERYSIPELAS.

Very finely powdered sulphate of iron, four, and pure glycerine, thirty parts. In summer the solution may be effected at the ordinary temperature; but in winter warmth is required. The mixture should be applied upon a small sponge of linen; and when desired it may be cleaned off with a little tepid water.—*Med. Times and Gazette*.

PEPSIN IN VOMITING OF PREGNANCY.

Dr. Gross, as the result of its trial in seven cases, strongly recommends pepsin in the obstinate vomiting of pregnancy. He gives fifteen grains at each meal, and continues it some time after the vomiting has ceased, which in some cases it has done after the first dose.—*Journal de Pharmacie*; and *Medical Times and Gazette*.

The following communications were lately made by Professor SIMPSON, to the Medico-Chirurgical Society of Edinburgh.

CARCINOMATOUS GROWTH REMOVED BY A PEN AND ESCHAROTICS.

PROFESSOR SIMPSON showed a carcinomatous growth which he had removed by applying to it, with a common pointed goose-quill, a thickish paste, made of commercial sulphuric acid and sulphate of zinc. The paste was taken up like a drop of ink in the pen, and laid in a line along the skin covering the tumor. The caustic immediately whitened and decomposed the external surface of the skin, and the decomposed tissue was scraped through with the point of the pen. By a succession of similar applications and scrapings, the skin and a portion of the underlying cellular tissue was cut through in a very few minutes; and two days afterwards the mass of the exposed tumor was divided and destroyed by the pen and caustic in the same way. If the tumor had been larger, a number of lines of escharotics could be sunk down in this same manner into the basis of the mass. The patient, who had had a tumor removed in England last year from the same spot by the knife, averred the pain of the caustic and pen was by no means great; but the sensitiveness of different patients was very different. After the dead tumor and dead surrounding tissue began to separate, the edges of the wound took on a rapid cicatrizing action, and pushed the decomposed mass out in a mushroom-like form. By the time it fell out, there was only a comparatively small circular sore left.

METALLIC SUTURES AND METALLIC LIGATURES.

Professor Simpson, showed a large fibroid tumor, extracted last month from the mamma. It was, he believed, the first instance in which metallic ligatures were ever used in the human subject to tie the vessels laid open in a surgical operation. In this case Professor Simpson used a thread of platinum for this purpose. The lips of the wound were united also by a suture of platinum wire. Dr. Sims, of New York, had lately earnestly pleaded the advantages of silver wire as a thread for surgical sutures, and as forming a material less irritating than silk, hemp, &c. But, if a metallic suture were of value in this respect, Professor Simpson argued that metallic ligatures to the cut vessels (a subject not alluded to by Dr. Sims) ought to be of still greater moment in relation to the healing of wounds by the first intention. The silver wire employed by Dr. Sims (No. 29) was too rigid to make a small knot, such as was required for the ligatures of vessels. Professor S. had used platinum, as more tenacious and pliant than silver. Perhaps copper alone, or covered with silver or gold, would be found as good, and much cheaper; and possibly slender threads of wire would, on experience, turn out the best, as well as the cheapest, for both sutures and ligatures.

INVERSION OF THE BODY FOR THE RELIEF OF THE SYMPTOMS PRODUCED BY THE PASSAGE OF A RENAL CALCULUS ALONG THE URETER.

Professor Simpson exhibited to the Society a small oblong renal calculus, from a patient who had passed them at different times, and always suffered terribly during their transit from the kidney to the bladder. This patient had been now twice relieved of the agonising symptoms accompanying the passage of the calculus by inversion of the body. Professor S. had subjected her to this treatment in consequence of his belief that the passing calculus, falling down into, and becoming impacted in the ureter, acted at its point of arrestment as a pea-valve, and by its accumulating the urine above, or in the pelvis of the kidney and higher portion of the ureter, led to the accompanying distress by the morbid distension of these portions of the urinary ducts. When the body was inverted, and the affected side manipulated, the calculus probably fell backward, and consequently upwards, by its own gravity. At all events, whatever be the explanation, the practice in this and in one other case had immediately relieved the patient. He had seen partial relief from changed position in one case also of gall-stones. Position was a more important therapeutical agent than was generally supposed, not only in medicine, but also in surgery and therapeutics. Several years ago—and shortly after the famous case of Mr. Brunel—Dr. S. saw, with Dr. Patterson and Dr. James Duncan, a case in which a shilling passed into the windpipe, and where upon inversion of the patient the shilling fell back into his mouth; thus saving the patient from the operation of tracheotomy. Dr. Duncan had published a full account of the case. In prolapsus of the umbilical cord in labour, the mere gravity of the cord in the usual supine position of the patient was no doubt one great cause of the difficulty of retaining it in utero, above the head or presenting part of the child, when once returned. But some late cases and observations proved that the return and retention of the cord could be effected with comparative facility, if the aid of position was called in, and the patient was placed upon her face, or upon her hands and knees, till the presenting part filled the brim of the pelvis; for in this prone position the cord gravitated towards the fundus uteri, instead of towards the os.

Dr. Struthers remarked, with reference to the case Professor Simpson had mentioned, that there must have been some mistake, as the coin was a shilling, and a shilling is too large to pass into the trachea. He had

been in the habit of showing his pupils that a shilling, and sovereign, are arrested in the male larynx, and a sixpenny piece, and half-sovereign, in the female larynx, at the same spot. They readily pass into the upper larynx, and, by falling straight in the middle line, might pass partly through the rima glottidis; but are firmly arrested just below this, so that the upper edge projects up through the rima, and is within the touch and reach of forceps. The male trachea is large enough to allow a shilling to move up and down in it, though not freely, but the amount of direct finger force necessary to push the coin through the lower larynx, is such that the passage could not occur in the living body. A shilling measures eleven lines, a sovereign nearly a line less. A sixpenny and half-sovereign measure nine lines.—*Edinburgh Medical Journal.*

NEW REGULATIONS FOR THE DIPLOMA OF THE LONDON COLLEGE OF SURGEONS.

The following are the new Regulations, just issued, relating to the examination for the Diploma of Member of the Royal College of Surgeons of England.

I. The examination of candidates for the Diploma of Member of this College will be divided into two parts; the first relating to anatomy and physiology; the second relating to pathology, surgery, and surgical anatomy.

The first examination, on anatomy and physiology, will be made as practical and demonstrative as possible.

The second examination, on pathology, surgery, and surgical anatomy, will be partly written and partly oral; and the written part of this examination will have the precedence.

II. The examination on anatomy and physiology will be held in the months of April, May, July, November, and January.

The examination on anatomy will be on the recently dissected subject, and on prepared parts of the human body.

Candidates for these examinations are required to signify their desire of being admitted thereto, not less than one month previous to the period of examination.

The fee of five guineas shall be paid by each candidate, prior to his examination on anatomy and physiology, and which fee will be allowed in the fee required on his admission as a Member of the College.

Such students as shall have completed the second session of their anatomical studies, and shall be desirous thereof, will be admitted to the first or anatomical examination in November or January next; and from and after the 1st of March next, all candidates for the diploma of the College will be required to undergo the double examination.

THE Maltese Government has established a quarantine of five days on all vessels and goods coming from the Regency of Tripoli, in consequence of a malady having made its appearance on that coast, which the physicians now state to be a sort of yellow fever. The director of the quarantine at Marseilles has enjoined on his colleagues the necessity of adopting the strictest measures of precaution, in consequence of the appearance of the epidemic spoken of above.

THE Government have resolved to proceed with the erection of Victoria Hospital at Netley, on the banks of Southampton water.

JAMES WILLIAM CUSACK, Esq., M.D., President of the Royal College of Surgeons in Ireland, and University Professor of Surgery, has been appointed Surgeon in Ordinary to the Queen in Ireland, in the room of the late Sir Philip Crampton, Bart.

SUBCARBONATE OF BISMUTH.—This preparation is strongly recommended by Professor Hannon, of the University of Brussels, as a substitute for the tris-nitrate of bismuth. The following are some of the advantages attributed to it:—It is very soluble in the gastric juice, and its action is very prompt, without producing that sensation of weight in the stomach which often follows the tris-nitrate; hence it can be continued much longer than the latter preparation. Its alkaline properties give it the great advantage of neutralising the excess of acidity which so often exists in the stomach in the various forms of indigestion. It rarely causes constipation. Dose for adults—from ten to forty grains; for infants, from one to five grains.—*Pharmaceutical Journal.*

UNIVERSITY OF DUBLIN.—At the summer commencements, held in Trinity College, on Tuesday, the 6th inst., the following medical degrees were conferred by the Right Hon. Francis Blackburne, Lord Justice of Appeal, Vice-Chancellor of the University:—M.D.: Benjamin G. McDowell, Robert MacDermott. M.B.: George Edward Carr, L. Carey, Francis R. Cruise, Henry S. Smith, John Ellis, William Temple, John Montgomery Fiddes, Benjamin G. McDowell.

MEATH HOSPITAL AND CO. DUBLIN INFIRMARY.—**ELECTION OF SURGEON.**—An election was held on Saturday, the 3rd instant, when T. Hawkesworth Iredwich, F.R.C.S.I., M.R.I.A., was chosen one of the Surgeons to the Meath Hospital and County of Dublin Infirmary, in the room of the late Sir Philip Crampton, Bart.

THE ROYAL SOCIETY.—At the Annual General Election of Fellows into the Royal Society, the following Medical men were elected:—T. G. Balfour, M.D.; A. B. Garrod, M.D.; W. H. Harvey, M.D.; W. S. Savory, Esq., M.B.; T. Williams, M.D.

QUEEN'S COLLEGE, BIRMINGHAM.—The new Principal of Queen's College, Birmingham, has placed on the Council Minutes the following notices:—1. In consequence of the growing importance of clinical instruction, as a most essential part of medical and surgical education, happily recognised by the new regulations of some of the most influential examining bodies, "That the Physicians and Surgeons of the Queen's Hospital be Professors of Clinical Medicine and Surgery respectively in Queen's College." 2. The importance of Practical Anatomy having been especially dwelt upon in the new regulations of the Royal College of Surgeons of England, to the effect "that on and after the 1st of March next, candidates for the Membership are to be examined in anatomy, as to test their practical knowledge of it, and to get rid of the practice vulgarly called cramming;" "that with a view to second such beneficial reform, that the Demonstratorships of Anatomy in Queen's College be elevated to the position of Professorships of Practical Anatomy."

WAR OFFICE, July 9th.—The Queen has been graciously pleased to give orders for the appointment of ANDREW SMITH, Esq., M.D., late Director-General of the Army Medical Department, to be an Ordinary Member of the Civil Division of the Second Class, or Knights Commanders of the most Honourable Order of the Bath.

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CLINICAL LECTURE.

By Dr. SMITH,

Professor of Surgery to the University.

On a Case of Cystic Tumor of the Femur.

In the month of June, 1852, a man named Mathew Dalton, about 30 æt., presented himself among the out-patients at the Richmond Hospital, seeking admission on account of a tumor occupying the upper part of the right thigh, and apparently produced by an expansion of the femur. He stated that the disease had commenced three years and a half previously, and began with a dull aching pain in the knee, which gradually extended along the thigh. The femur then began to enlarge, but the growth of the tumor was slow, and the pain of a trivial character.

At the period of his admission into hospital his health was in all respects perfect, and he walked with scarcely any inconvenience; the limb measured, round the centre of the tumor, twenty-six inches; the integuments were healthy, and movable over the tumor, which presented an even and globular surface; there was no glandular disease, nor enlargement or tortuosity of veins in the vicinity of the morbid growth, which was manifestly of a benign character; it was uniformly firm and solid to the feel, and pressure on it gave no pain.

Besides this principal tumor, there were several other osseous growths observed in different parts of the body; there was a small one over the right external ankle, applied by a broad base to the end of the fibula, and movable; there was one above the inner ankle; and another of larger size, and irregular surface, directly below the inner side of the head of the tibia; and again another on the dorsum of the ilium. There were likewise others in nearly similar situations, on the left lower extremity—one on the dorsum of the foot, a second

over the outer ankle, a third below the inner edge of the head of the tibia, and a fourth just above the inner condyle of the femur.

He remained in the hospital on this occasion for one year and ten months; he then returned to the country, and resumed his occupation as a farm-labourer. At the expiration of three months he came back to Dublin, and was re-admitted into the hospital on the 23rd of November, 1854. With the exception of an increase in the size of the tumor, which, with the limb, now measured thirty-two inches in circumference, there was no change in his condition; his health continued perfect, and he could still walk well.

On this occasion he only remained three months in the hospital; he went home in February, 1855, and did not come back until the 9th of January, 1857. The morbid growth had now attained a prodigious size, measuring three feet four inches in circumference, and one foot eight inches in its longitudinal extent. It had extended upwards, so as to conceal the tumor on the dorsum of the ilium. Certain portions had become prominent, but it was very firm, and almost equally resisting throughout. In some places there was a very distinct feeling of elasticity, and here and there over its extensive surface the finger detected, in the bony shell, deep sulci, which formed the channels of dilated veins. The femoral artery, which was with difficulty detected, ran along the inner and posterior surface of the tumor. The motions of the hip-joint were obstructed by the extension of the growth upwards. The knee-joint was the seat of a considerable degree of pain; its motions were impaired, and the entire leg swollen and hard. The integuments covering this immense tumor, though stretched to the utmost, had as yet scarcely any morbid attachment to it; but here and there a blush of redness had appeared, and there was a general tendency in it to retain for a short time the impression of the finger. No change had taken place in any of the other tumors, but his general condition had altered for the worse. He had lost flesh, rested badly, and had not the same relish as formerly for his meals; he also suffered more pain

than usual in the tumor, and complained of thirst and a troublesome cough.

With respect to the nature of this immense tumor, though it was difficult to pronounce with certainty or precision as to its intimate structure, it obviously possessed the characters of a benign growth; its slow, though gradual and steady increase, extending over a period of eight years; the complete absence of glandular contamination; the comparative integrity of the patient's health; the trifling amount of pain; the man's ruddy complexion, and his cheerful state of mind; and especially the co-existence of so many other tumors, as to the non-malignant nature of which no doubt could be entertained; were all circumstances which forbid my arriving at any other conclusion than that this prodigious growth was a form of benign osteosarcoma. There does not appear to be any other tumor affecting the long bones which attains to so vast a size, and yet is consistent with such integrity of the general health, and so complete an exercise of the functions of the limb.

Shortly after the date of his last admission, the patient was attacked with erysipelas of the affected limb, and sunk in a few days.

Autopsy.—The integuments were removed from the surface of the tumor without difficulty, no intimate adhesion having been contracted; the

muscles were spread out, pale, and attenuated; their natural colour had totally disappeared, but they were still of firm consistence. When all the soft tissues were perfectly cleared away from the tumor, the surface of the latter was found to be made up of a vast number of smooth rounded lobules, separated by sulci and depressions more or less deep. These sulci had been filled up by the altered muscular fibres, and thus was given to the tumor the smooth globular form which it was observed to present during life. Some of these prominences had for their covering a bony shell, so thin and elastic as readily to yield to the pressure of the finger; others were invested by a thin cartilaginous shell; and in very many the contents of the cyst were inclosed in a translucent membrane. The tumor seemed to have originated in the superior third of the femur, with which it was in this situation incorporated, its lower portion being merely applied and adherent to that bone by a loose cellular tissue.

A longitudinal section carried through the tumor and through the femur, from the head to the condyles, disclosed a vast congeries of cysts, filled with solid contents, and of all sizes, from that of a small pea to that of a wall-nut; they were lined by a smooth glistening membrane, of a pearly aspect, and were filled with a slightly elastic substance,



somewhat resembling cartilage in appearance, but of less firm consistence. Scattered throughout the tumor there were large masses of amorphous bony matter, the irregularities of their surfaces being

filled up by the semi-cartilaginous material already noticed as occupying the cysts—a few of the latter were filled with an amber-coloured fluid. The portion of the femur where the tumors originated was

much enlarged, and its compact tissue resolved into a spongy structure; there were irregular osseous deposits on its surface, and the expanded medullary canal was filled with the same solid material as that contained in the cysts. Most of the other tumors, already mentioned as existing in several parts of the skeleton, were composed of solid bone, but that on the dorsum of the ilium, which was the largest, was beginning to become cellular, and to assume somewhat of a cystic character.

There was no trace of visceral disease.

The case thus briefly described furnishes a most remarkable example of one of the forms of the cystic tumor of bone, a disease respecting which, until of late years, much obscurity and uncertainty prevailed, many instances of it having been, from time to time recorded under the general name of *Exostosis*.

As regards anatomical characters, cystic tumors of bone present themselves under many different forms, but may be all conveniently classed into cysts with solid contents and cysts with fluid contents (a division adopted by Nélaton), and, as respects their internal arrangement, may be either unilocular or multilocular. Both forms of the disease appear to occur most frequently in the lower jaw, but are also occasionally met with in other bones. In the second volume of his work on Surgical Pathology, Nélaton has delineated probably the most remarkable example on record of a multilocular cystic tumor, with fluid contents, engaging the entire of the femur, from the greater trochanter to within a short distance of the condyles; and an instance of a somewhat similar form of disease occurring in the clavicle, from injury, and in which the cysts were filled with blood, has been published by Travers, in the "Medico-Chirurgical Transactions."

Mr. Cæsar Hawkins arranges the tumors of bones into three classes—viz., encysted tumors, exostous, and othosarcomatous tumors, in which there is more or less osseous material, but mixed with a large proportion of other solid structure; and he subdivides the first class into hydatid and serous. He does not, as far as I can ascertain, speak of any form of cystic tumor with solid contents, and would, no doubt, consider the case which I have detailed as an instance of an osteosarcomatous tumor; but it does not present the anatomical characters of what is commonly termed benign osteosarcoma, nor does it correspond with the description given by Müller of "enchondroma."

Neither does Stanley, in his admirable work on Diseases of the Bones, appear to recognise the cystic tumor with solid contents as a distinct disease, and different from the cartilaginous tumor.

In the 34th livraison of the "Anatomic Pathologique" of Cruveilhier there will be found recorded a most remarkable instance of an immense tumor of the humerus, of a cystic character, the cysts being filled with solid materials. He describes it under the title of "osteochondrophyte."

With the exception of being of smaller size, the tumor was quite analogous to that which I have described. The case was under the care of M. Roux, who removed the limb at the shoulder-joint, together with the outer extremity of the clavicle, and a portion of the scapula. The results of this formidable proceeding is not mentioned by Cruveilhier, but during a visit to Paris, some years ago, I ascertained that death occurred in a few hours after the operation.

(To be continued.)

NOTES OF A CASE OF POISONING BY STRYCHNIA.

By GEORGE H. PORTER, M.B., F.R.C.S.I.,

One of the Surgeons of the Meath Hospital.

It is not long since the attention of the public and of the Medical Profession has been closely drawn to poisoning by the alkaloid strychnia, that of the former by the dreadful murders of Cook and Mrs. Dove, and of the latter, in addition, by the valuable publications of Geoghegan, Adams, and Taylor. Dr. Geoghegan's pamphlet is most ably written, and replete with interest; Mr. Adams' contains a nicely drawn comparison between the symptoms of ordinary tetanus, and those produced by a dose of this poison; and Dr. Taylor institutes a series of most careful comments on the medical evidence brought forward on the trials of Cook and Palmer.

Whilst lately perusing the interesting and useful "*Table of cases of poisoning by strychnia*," in Dr. Taylor's work, published in the year 1856, I was forcibly struck with the fact, that the number of medical men who have seen and examined the bodies of persons killed by this poison is very small indeed; and as it has fallen to my lot to inspect and make *post-mortem* examinations, in two instances, of gentlemen who selected strychnia as the means of committing suicide, I feel it incumbent on me to lay the following case before my professional brethren:—

Mr. G., aged 20, fair complexion and of middle stature, with well developed muscular system, was found dead in his bed at one of the hotels in this city. He had been remaining at the establishment for some days, and appeared to be in the enjoyment of good health and spirits. On the 12th January, 1857, he left the hotel in the morning to go hunt, having previously ordered dinner to be ready for him at six o'clock. He did not however return until eight o'clock that evening, when he partook of the meal, apparently with an appetite. He stayed in the coffee-room for some time, and then went out of the house, and did not return until about half an hour after midnight, when he retired to his bedroom.

Whilst out, he called at a medical-hall about

eleven o'clock, and sent up word to the proprietor, who was in bed, that he was going to the country very early the following morning, and wanted some strychnine to poison a dog, at the same time apologising for applying at such a late hour. The assistant brought the message up to his master, who at once refused to let him have so large a quantity as that asked for, of so deadly a poison, and desired the young man not to give it to Mr. G. He however prevailed on him, contrary to the directions of the proprietor, to give twenty grains. With this fatal package he returned to the hotel, and was discovered on the morning of the 13th January, by one of the waiters, a lifeless corpse.

At one o'clock, p.m., that day, I was called upon to examine his body. It lay in full hunting attire in the bed, on his right side, the only part of his dress removed being his shirt-collar and neck-tie; a photograph miniature of a lady was under his right hand. His face was pale, and features calm like sleep, the eyes being closed, the pupils natural, the lips separated about one-fourth of an inch, no froth on them, and the teeth about one-eighth of an inch apart; tongue not protruded; his elbows bent at right angles, and fore-arms brought across the chest; extremely rigid, although still warm; his hands were half clenched, and his wrists slightly bent on the fore-arms; his lower extremities were extended and very rigid, the left lying a little across the right; the head and neck were forcibly bent backwards, and the entire body curved from the occiput to the heels, in a state of "opisthotonos" well marked. It was most difficult to take off his clothes, owing to the rigidity of his frame. Livor well developed all along the right side of his body, the remainder being quite pale. I placed it on a large table when undressed, and whilst I kept the shoulders in the same place, the body rested on the back of the head and the heels, the nates were raised from the surface of the table about half an inch, it being quite possible to look under them; the feet were not much extended, and were slightly turned inwards; there was no discharge of fæces, semen, or urine.

The autopsy disclosed the following appearances:—The muscles of the thorax and abdomen were of a bright red colour and well developed, there was a natural quantity of fat; the lungs were a little congested, otherwise healthy and voluminous; about half ounce of serum lay in each side of the pleura; the heart rather larger than natural, its right cavities distended with dark fluid blood, the left side contained but a small quantity, the valves were all normal; the stomach was very vascular, the mucous membrane in several places was mottled with dark brown patches—it contained about six ounces of food, and in some of the rugæ the strychnine was visible; about six grains of the poison had been swallowed, and an analysis of the contents of the stomach (which

was kindly performed for me by Professor Geoghegan), gave all the usual proofs of the presence of the alkaloid. The liver and gall-bladder were healthy, as were also the kidneys, spleen, and intestines, the bladder was nearly full of urine; the brain was apparently healthy, but slightly congested. It is much to be regretted that the history of this case immediately prior to death is unknown, as it would be most interesting to know how soon after this large dose was taken the symptoms supervened and death followed. The second case that I had an opportunity of examining, differed from this one in some respects; but as it has been so well described in the pamphlet of Professor Geoghegan, before mentioned, I need not now enter upon any of its details.

CASE OF BRONZED SKIN AND DISEASED SUPRA- RENAL CAPSULE.

By ROBERT MURNEY, M.D., L.R.C.S.I.

I was consulted by a gentleman, on the 1st of April, 1858, for a scrofulous tumor in his right axilla. He had a similar one above the clavicle, on the same side. He complained of great debility, want of energy, and loss of flesh, with constant nausea, although his appetite was pretty good. His age was 34; had been married four years, but had no family. He was temperate in his habits, and never had any syphilitic affection.

He gave me the following account of himself:—He rose early, and went regularly to his office at a certain hour, and enjoyed general good health up to two years before. At that time he had a sudden fit, fell from his office-chair, and remained insensible for some time. His stomach and bowels were affected simultaneously; the latter continued to annoy him for a month afterwards. He was at this time very weak, and greatly emaciated, and he never recovered his strength. About two months after the occurrence of the fit, his wife observed over his face and hands a peculiar shade of brownish-yellow colour, which became darker day by day.

When I saw him his face and neck wore a well-marked bronzed appearance. There was a deeply-tinged areola around each nipple, and a similar one at the umbilicus, with a line corresponding to the linea alba down to the pubes, about one inch in width.

It was remarkable that this bronzed appearance should be confined entirely to the front of the body, as there was not the least tinge on the posterior aspect. The hands, up to the wrists, presented a wonderful contrast with the colour up the arm: the hands were like those of a Mulatto.

The appearance of the man was remarkably anæmic; the lips and gums seemed bloodless, and the nails on his fingers had a dirty bluish-white

appearance. I could detect no disease in the lungs; the heart's action was weak, the impulse feeble; both sounds distinct; no murmur existed; the pulse was slow—50 in the minute. He had no headache, no loss of memory; his intellect was perfect, but his ideas were slow, and appeared to participate in the general debility of the body. There was no tenderness over the stomach, no enlargement of the liver or spleen; and he passed urine freely. I repeatedly tested it, but I never could detect a single trace of albumen in it. The lymphatic glands of the groin were enlarged.

I was six weeks in attendance on this man; he improved a little under the treatment, which consisted of brandy and wine, with nourishing broths, and jelly. Though he improved a little in strength, still his energy was deficient. He went to the country, and when there about three days, he got a fit, while in bed about four o'clock in the morning, from which he never recovered. I saw him about nine o'clock of the same morning; his state was as follows:—Pulse 60 in a minute; the heart's action small and feeble; breathing stertorous; a distressing hiccough after each inspiration; eyes open, pupils contracted; hands tetanically clenched. He was quite insensible. He died in eight hours after the fit.

A *post-mortem* examination, twenty-four hours after death, showed the lungs to be healthy; the heart pale, soft, and flabby, with the usual appearances of fatty degeneration; the stomach and intestines quite healthy. The spleen was healthy, but the liver was enlarged.

The left kidney was small, cartilaginous, and full of scrofulous matter. I was in doubt if it were a kidney, but my doubts were removed when I found the ureter and it pervious. The supra-renal capsule was absent. The right kidney was greatly hypertrophied; cortical substance one-quarter of an inch thick; no other organic change; it was very vascular. The supra-renal capsule of this kidney was of a deep chocolate-colour, of a firm fibrous texture. There was a small tubercle, of a yellowish colour, in its centre, about the size of a small pea. I regret I was not permitted to examine the brain.

On reviewing this case, and recollecting the great general debility, and want of energy, the slow pulse, the weak heart, and its abnormal appearances, it being both pale and flabby, I consider that all the symptoms of which my patient complained, were more the result of diseased blood than of any other cause (I regret I did not examine the blood microscopically); but whether to consider the blood disease as having had its origin in the disease of the supra-renal capsule, or not, is the question to decide. My knowledge of the disease is so limited, confined, as it is, to this case alone, and to what I have read on the subject, that I cannot take on myself to decide at present. The symptoms and appearances presented by this case throughout the entire illness, were exactly similar to those so gra-

phically described by Dr. Addison as those found by him where a bronzed skin and disease of the supra-renal capsules were coincident — namely, great debility, want of energy, and prostration. If we were to consider the case as a simple leucocythæmia, in which Dr. Bennet says the morbid increase of the colourless corpuscles of the blood may attain an amount so great as to constitute a fourth part, or even a half, of the whole globules, we would expect to find, with him, that "the spleen, liver, and lymphatics were diseased." Such was the case in the instance which I have detailed; the liver, kidney, supra-renal capsules, and lymphatic glands were all diseased. I entirely agree with Gendrin and Andral in their opinion, that in diseases of debility, where the blood is deficient in quantity and poor in quality, it is the albumen which is so much diminished, being sometimes less than half its usual portion. I am satisfied that if the blood had been examined, in my patient's case, it would have been found so deficient.

I am induced to publish this case with the view chiefly of directing attention to the possibility of such symptoms as existed in the above and similar cases being coincident with, rather than consequent on, disease of the supra-renal capsules.

We extract from the last number of the *Medical Circular* the following case of diseased supra-renal capsules, as bearing very closely on the question raised by Dr. Murney in connexion with his very interesting case.

WHAT IS THE TRUE NATURE OF "ADDISON'S DISEASE"?—A REMARKABLE CASE OF DISEASED SUPRA-RENAL CAPSULES, WITH ASTHENIA.—DR. ADDISON AND DR. WILKS.

A poor young man died last week in Guy's Hospital, who was affected with the asthenia or debility to which Dr. Addison has drawn attention in his curious monograph—an affection now pretty generally known in practice as "Addison's Disease." The duskiness or blotching of the skin was peculiarly well marked, for a period extending over two years; and, as is usual at the Borough Hospitals, the case was watched with considerable attention and interest, though opinions, of late, have changed towards an impression that it is the parts adjacent to the capsules which suffer in the malady.

Thomas L——, aged 32, admitted under Dr. Addison's care, July 2, in a very debilitated state, was recognised as having been already in the hospital, under the care of Dr. Habershon, in the latter part of 1856, complaining, at the latter date, of what was thought to be liver disease by some, but pronounced by Dr. Habershon a case of "Addison's Disease." The poor man, at this time, had a haggard, worn appearance, and said he suffered from faintness on the least exertion. His

pulse was only 64, and weak; but the most obvious symptom was the duskiness of the skin, as if apparently from want of circulation.

Dr. Habershon, adopting the rational view of Dr. Copland, that the disease is not so much due to any vital action that the supra-renal capsules perform in the economy, as to the pressure or injury exerted by enlarged supra-renal capsules on the semilunar ganglia and solar plexus, with both of which the capsules are intimately associated, proposed the use of electricity, which, together with bark and iodide of potassium, afforded considerable relief. We may say we have seen a similar plan of treatment, of much benefit also, in a case at St. Bartholomew's Hospital—viz., bark, and sarsaparilla, and quinine.

"After leaving the hospital at that time he was better, and he was able to follow his employment," according to the clinical register of cases so admirably kept at Guy's; but three weeks before his last admission he took cold and became much worse, and returned to hospital, as already stated, on the 2nd of July of the present year. He stated his strength had been good, but it was evident that he had become accustomed to an unnatural condition, for he would not admit his extreme weakness even then, although he could scarcely stand. The skin was of a dark-brown colour, and of a deeper tinge at the navel, nipples, and scrotum. He had dizziness and failure of vision on attempting to walk, and no appetite. He was labouring, in fact, under what is called at Guy's, by some, as "*Asthenia Addisonii*."

We believe the term "*Melasma*" gives a very absurd idea of the disease; and the word "*bronzing*" Dr. Addison has, over and over again, repudiated, as not occurring in any of his writings on the disease.

Post-mortem Appearances.—The colour of the darker portions of the skin was very deep, something between the tinge of the quadron, and the greenish brown of some bodies long kept in the dead-house; the axilla, umbilicus, and genital organs, were particularly dark or blotched; the margin of the lips also were dark; the hair darkish; eyes grey; the muscles were red and of good size; the contents of the chest presented nothing abnormal; the brain was healthy; the lungs—with the exception of the apex of the right lung—were healthy; the heart was small, but firm, red, and healthy; the veins full of blood; the mucous membrane of the stomach was very much injected, and the surface covered with tenacious mucus, as if a low form of gastritis existed; intestines healthy; mesenteric and other glands healthy, as were the liver, spleen, and pancreas. Coming to the suprarenal capsules (which, we may say, have in numerous bodies been examined with much care by Dr. Wilkes, for Dr. Addison, and to both of whom their ordinary tissue is well known), they were found to be entirely destroyed, by a deposit of an aluminous or cretaceous deposit; there ap-

peared, also, signs of inflammation of their investing capsules as the latter were firmly adherent to the surrounding parts; the right capsule was thus united to the liver and top of the kidney, and the surrounding fat could not be removed in the ordinary way; the right capsule was about the size of the healthy organ, but the left was puckered into a roundish mass about the size of a walnut; both, in fact, seemed filled with a cretaceous matter, or white amorphous substance like tubercle; the right capsule was softened in its middle, containing a fluid like pus. In rough terms we would say the capsules, as is usual while they are diseased, in this affection, were full of a chalky tuberculous matter that injured the nervous tissues around them. The most suggestive feature in the case, in fact, was the condition of the semilunar ganglion, the nerve branches of which ran quite into the diseased capsules, and were lost in them.

We need only say the pigmentary matter in the skin presented nothing of importance, being found in the *rede mucosum*, where it was probably deposited in a passive manner; the destruction of the semilunar ganglia preventing its normal assimilation or absorption.

A FURTHER REPORT OF A
CASE OF ENLARGED SPLEEN, CAUSING
HÆMATEMESIS AND MELÆNA,
AND TERMINATING IN ASCITES.—EVENTUAL CURE
BY MERCURY.

By HUGH CROSKERY, L.R.C.S.I.,
Late Assistant-Surgeon, R.N.

I described a case of more than usual interest, in the *Dublin Hospital Gazette* of February 1st, 1858, and as by some error the age of the child was omitted, I will probably be excused for again reverting to it. Besides, I look back to the result of the treatment of the case with no small degree of satisfaction and pride. I had, in the first place, to deal with repeated attacks of hæmatemesis and hæmoptoe, the result of an enlarged spleen, by which the child, who was only three years of age, was reduced to a skeleton; and then, when by appropriate remedies I had, to a great extent, reduced in size the spleen, the cause of all the mischief, and conquered the hæmorrhage, and when the child was fast gaining strength and colour, symptoms of dropsy suddenly set in. Here again, notwithstanding that he was at once removed out of the reach of malarious influences, the employment of vapour baths, diaphoretic and diuretic medicines, along with iodine, quinine, and iron in various forms, had no effect on the disease, which went on apace, and would have terminated fatally, had I not removed the fluid from the over-distended cavity of the abdomen on no less than

two occasions. At last, when there was every reason to believe that the trochar and canula would be again had recourse to, I luckily tried mercury, and at the end of ten days *every symptom of the disease had disappeared*. Since that time, seven months have elapsed, and my little patient, from being a pale, puny child, has now become a fine, fat, ruddy boy. He occasionally gets a paroxysm of intermittent fever, which always yields to the following remedies; a mixture of acetated water of ammonia, sweet spirits of nitre, tincture of henbane, with a small proportion of tartar emetic in camphor mixture, *given every hour during the hot stage*; and a grain of quinine *given every hour during the intermission*. I find that this treatment almost always prevents the occurrence of a relapse, and, since I have commenced practice in Jamaica, I have found that, in my hands, it has been most successful in the treatment of intermittent fevers, both in old and young. The acetated water of ammonia and sweet spirits of nitre encourage perspiration, without enfeebling the strength or lowering the nervous system, while the tartar emetic and hyoscyamus relieve the head, and prevent delirium. During the intermission, I give quinine *in small doses, often repeated*, and by this means I get the system quietly under its influence, without producing those unpleasant symptoms—headache, giddiness, ringing in the ears, coma, and often convulsions—which, when given in large doses, it is certain to produce. To an adult I give two grains every hour, if it be a case of tertian intermittent; but if the interval be short, as in quotidian, I double the dose. In the little boy's case, the spleen is still enlarged, and can be felt in its entire outline; it occupies a space, the entire length and breadth of which corresponds to the size of a large adult hand, and maps out the left hypochondriac and lumbar regions, with a part of the left iliac and umbilical; as the boy breathes, it can be seen to ascend and descend with the movements of respiration, and, strange to say, the concave surface or hylus, which in the normal state looks inwards, is anterior and related to the abdominal wall in front. He eats well and sleeps well, is exceedingly lively, and, as I said before, from being a haggard skeleton, he has become stout and strong.

CASE NO. 2.

REMOVAL OF

A LARGE FIBRO-CELLULAR GROWTH,

WEIGHING FOUR AND A HALF POUNDS, AND CONTAINING SEMI-SOLID JELLY-LIKE MATTER, FROM THE LABIUM OF A NEGRO WOMAN.

I was sent for, on the 16th June, to visit a Sambo woman, aged 35, the mother of six children, and six months pregnant of her seventh, who was represented to be in a very dangerous condition. Having arrived at the house, and ex-

amined her, I found an enormous, elastic, multi-ocular growth, composed of a number of cysts, growing out of each other, and varying in size from a pigeon's to a goose's egg, all attached by a single base, about an inch in diameter, to the left labium. Besides this mass, there were also a number of smaller tumors attached to the same labium, and in a similar manner, but by separate bases. I was unable to get the true history of the case from either the woman or her friends. It appears that no one knew of the existence of the tumor until a week previous to my visit, as she had, from feelings of modesty, concealed her ailment from her friends, until the parts became so exquisitely painful, that she could no longer conceal the condition she was in. It is certain, however, that the growth did not exist six months ago, of which fact I have been assured by a very good authority—the father of her unborn babe. Having placed her in a good position, and secured the vessels, by passing a needle armed with a double ligature through the base of the tumor, and by knotting their ends together firmly on either side, I cut away the mass with a scalpel close to the ligatures. It weighed *four and a half pounds*, and when cut into, it was found to contain a whitish semi-solid, glairy matter, like jelly, and when squeezed, a pint of straw-coloured serum oozed out of it.

Mullet Hall, Chapelton, Jamaica,
June 25, 1858.

Reviews.

Observations on Naval Hygiene and Scurvy, more particularly as the latter appeared during a Polar Voyage. By ALEXANDER ARMSTRONG, M.D., R.N., Author of "A Personal Narrative of the Discovery of the North-West Passage." London: Churchill.

We have seldom experienced more pleasure in the perusal of a medical work than we have in reading over the present one, which in every page affords ample proof of the clear mind and practical common sense of its author; and when we remember that the materials for its compilation were obtained during one of the most interesting and important voyages ever made by British sailors, we do not think that we are, as Irish Journalists, at all wrong in congratulating the Irish School of Medicine on the result of the labours of Dr. Armstrong, now one of our most distinguished alumni, and in pointing out his work to our present race of pupils, and to our profession, as an example of how a valuable addition to our literature has been made, even whilst labouring under the innumerable disadvantages of a long and weary voyage, an icy climate, and a protracted absence from all the advantages of home and civilized society. The jour-

nal kept by Dr. Armstrong of his practice whilst in the *Investigator*, has been favourably received by his superior officers, and its merits rewarded by the bestowal of Sir Gilbert Blane's gold medal. This, it must be admitted, is a most appropriate reward, for to Sir Gilbert Blane the navy of England owe their comparative immunity from scurvy; and how great this boon is, those who have read the graphic story of Anson's voyages, or the recurring tales of disaster and death chronicled by Lind, in his masterly and interesting work, will readily acknowledge. Our debt of gratitude to Blane is thus alluded to by Dr. Armstrong:—"It was owing to the urgent representations of that distinguished physician, who had already conferred inestimable benefits on the fleet, and who may be justly termed the Father of Naval Medical Science, that the Admiralty were prevailed on to give the necessary orders that lemon-juice should be issued to the navy for the prevention and cure of scurvy." "This fortunate circumstance was brought about in consequence of the alarm created by the prevalence of disease in the fleet under the command of Lord Howe, in the spring of 1795, the outbreak being traceable to causes entirely analogous to those which induced the epidemic on former occasions—namely, the deprivation of fresh vegetables. So prevalent was scurvy in this fleet, and so much enfeebled were the crews by its visitation, that the ships were rendered quite inefficient, and the safety of the empire became, in consequence, absolutely imperilled." "From this period a new era dawned on our navy, and scurvy gradually disappeared, at least in our public service, for we greatly fear that, through culpable neglect—not to attribute it to worse motives—it still pervades our merchant ships, and destroys many valuable lives, which otherwise would be preserved, if a very trifling attention were paid to provide suitable food and vegetables for their sailors' use."

The *Investigator* left this country at the coldest period of an English winter (January, 1850), with a complement of 66 officers and men. They were carefully selected; and as it was resolved to enter the Polar Sea by Behring's Straits, the voyage was protracted for six months before they communicated with land after leaving England; this was at the Sandwich Islands, and here they remained only for one clear day in harbour, affording but little time to recruit the men's health, and giving them a supply of sufficient fresh meat for fourteen days' consumption, and a much smaller stock of fruit and vegetables. They entered the ice on the 2nd August, and until they were finally frozen in, towards the middle of October, the crew were constantly engaged in laborious and harassing work, and much exposed to cold, wet, and fatigue. The salted provisions they brought from England were of good quality, and only prepared a few days previous to their departure; and the preserved meats, it is sufficient to say, were prepared by Mr. Gamble, of Cork, whose high cha-

racter for these provisions is alluded to by Dr. Armstrong. The ship's company had full allowance for twenty-one months; after this period it was reduced to two-thirds, the quantity of vegetables issued remaining unchanged; but instead of potatoes, rice or pearl-barley were occasionally substituted. The quantity of lemon-juice was not altered. From September, 1852, a further reduction took place: the vegetables were reduced to two and a-half ounces daily, and the lemon-juice to half the quantity formerly issued, rum being only given on alternate days. Occasional supplies of fresh meat were afforded by shooting game—such as musk-oxen, rein-deer, and fowl; and in the summer of 1852, for a period of three weeks, they had a limited supply of sorrel and scurvy-grass. Towards the beginning of the third year the salt beef and pork were very generally eaten raw by the men, or only partially cooked, as it was found to allay their hunger better than when cooked, and therefore shrunk in size by the boiling. As to the comparative amount of food required by man in an arctic climate, Dr. Armstrong says, "I consider the full allowance inadequate to maintain health."

Dr. Armstrong considers much of his success due to the adoption of an arrangement by which each man got his supply of lemon-juice and drank it in the presence of an officer, instead of following the routine custom of issuing it with sugar to the different messes into which the crew was divided; for, as he obviously remarks, the regular issue of lemon-juice is no guarantee for its being taken by the men, many of whom will barter it for spirits; and it is to be hoped that this simple suggestion of Dr. Armstrong's will receive due attention from the heads of the navy, not only as regards the issue of lemon-juice, but that also of spirits, which, as Dr. Armstrong points out, would do much to put an end to drunkenness on shipboard, and all its concomitant evils:—"this vice, resulting from a custom which exists among sailors of frequently bartering their grog, or accumulating it until they have collected a sufficient quantity to make them intoxicated."

Much stress is laid on the ill effects of damp, cold air between decks, during the winter months, in promoting disease. This was caused by the want of sufficient fuel to maintain a comfortable temperature, and to dispel the vapours generated by a number of men congregated together; and the ill effects of the old and absurd custom of washing decks daily, instead of dry-rubbing them, is forcibly alluded to. We are surprised to find that some officers in the navy are still in the habit of having this done. Surely if they are so ill-judging as to persevere in this most dangerous practice, one so directly contrary to the health and well-being of those committed to their care by their country, it is high time that their superiors should put an end to it, or supply their place by younger and less ignorant men.

Dr. Armstrong is of opinion, with Liebig, whom he quotes, that salt is directly injurious, abstracting from the fresh meat a large quantity of albuminous, highly nutritive matter, thus accounting for the debility which results from a long-continued salt-meat diet, unless some other source supplies the defective material. He also alludes to Dr. Chambers' interesting papers, and Dr. Böcker's views as to the mode in which an excess of salt may, by its solvent action on the albuminous tissues of the body, lead to excessive waste of structure, and when this is inadequately met, debility and disease must ensue. Another of Dr. Armstrong's practical suggestions on this point, we cannot pass by without alluding to; it is as follows:—"When we know how admirably meat can be preserved in the present day without salt, or with a small quantity only, by those conversant with the art, their aid might be advantageously invoked to improve the diet of our fleets and armies." We only fear it is too practical and too good a suggestion to meet any attention whatever from the higher powers.

We must refer to the work itself for the admirable description of scurvy, which is divided into three forms or heads:—

- 1st, Scorbutic Debility, or Mild Scurvy.
- 2nd, Scurvy Proper; and
- 3rd, Acute Scurvy.

It is not at all improbable, that if attention were directed to it, that whilst the two latter forms are fortunately of rare occurrence amongst ourselves, the first state would be found much more frequently than we think. As to the treatment of the disease, we will quote Dr. Armstrong's words:—

"Lemon-juice is, in my opinion, the sovereign remedy in the treatment of this disease. Where fresh fruits and vegetables are not available, I have never seen it fail in any form of the disease, when I could command an unlimited supply of it; but where debility has resulted from insufficiency of food, a larger supply of provisions will, of course, be necessary to restore the enfeebled physical powers. The promptings of nature alone would appear to indicate the treatment to be pursued, for there is great desire always manifested by those labouring under the disease for acids, or anything of an acid character. I can add the weight of my personal testimony to the existence of this feeling, from having myself been attacked by the milder form of the disease. Although not at any former period fond of acids, yet so strong was my desire for them at this time, that I could drink undiluted lemon-juice with a wonderful degree of relish, and in quantity much greater than that with which I could afford to supply myself."

We must now conclude, although we might with advantage abstract largely from this most interesting and valuable addition to our literature. Every page of it abounds in intelligible and rational views; and we can add no higher expression of our opinion, than in saying it is worthy to rank with Lind's able volume on the same subject, and must be considered an indispensable manual for the guidance and instruction of all to whom

the life and well-being of sailors are committed. Essentially written for the naval medical officer, it should be studied by the commanders of our vessels; and whether they hold the Queen's commission, or command our merchant vessels, they would in the end be wiser and better men, more fit for their office, and more likely to discharge their duties with efficiency and credit.

As a supplement to this notice of Dr. Armstrong's work, we are happy to be able to add the following:—

DR. ARMSTRONG, F.R.G.S.

The promotion of the above gentleman to the rank of Deputy-Inspector of Hospitals and Fleets, reflects the greatest credit on the judgment and discernment of the First Lord of the Admiralty, in having promoted one of the most distinguished and most meritorious medical officers of the royal navy, and hitherto one of the most neglected.

The career of Dr. Armstrong in the service has been always marked with *éclat*. It mattered little what has been the nature of the service on which he has been employed. On referring to O'Byrne's "Naval Biography," we find, as far back as 1843, he was publicly thanked by his commander-in-chief for the ability and success with which he conducted the medical and scientific department of an exploring expedition in Asia Minor, and was then officially recommended for promotion. His distinguished services during the memorable voyage of the *Investigator*, and discovery of the North-West Passage, are now a matter of history, and stand without a parallel for what his skill, energy, and judgment then achieved. To the great excellence of his sanitary arrangements it was owing that the *Investigator* never lost a man for upwards of three years; and although suffering every form of privation and hardship, the crew enjoyed an immunity from disease truly wonderful; and never was the gratitude of a body of men more strikingly evinced than in their conduct to Dr. Armstrong on his return to this country, when they presented him with a magnificent gold chronometer and chain, to testify their respect and gratitude for his services to them in many a trying day. Yet for all this, Dr. Armstrong received no recognition of his services; and it will scarcely be credited, that while every officer of the *Investigator* not only received their promotion, but had their commissions antedated upwards of four years to the period of the discovery of the North-West Passage, yet this distinguished officer was not included. We next find him, a few months after his return, surgeon of a line-of-battle-ship, the *Cornwallis*, in the Baltic Fleet, present at the bombardment of Sveaborg, and the spirited attack on the batteries of Sandham by the detached squadron under the command of Captain Wellesley, C.B., of the *Cornwallis*. He was also the senior medical officer of the brigade of rocket-boats in two night attacks on the Russian batteries of Storkolen; yet, at the conclusion of the war, he was still neglected and excluded from the medical promotion which then took place. He next served on the North America and West India station, from which he returned last year.

Dr. Armstrong has been awarded Sir Gilbert Blane's gold medal for the merit of his professional journals and reports, and has attained for himself a high literary reputation, as he is the author of a "Personal Narrative of the Discovery of the North-West Passage," and more recently of "Observations on Naval Hygiene and Scurvy," which ought to be read by every medical officer in the navy.

It only remains for us, in calling attention to this well-earned promotion, to congratulate Sir John Parkinson thereon, affording as it does evidence that he will be trammelled by none of the red-tapism of the

service, which has on so many occasions contributed to its inefficiency, and that merit will receive from him its reward. We also congratulate the medical officers of the navy on the promotion of one of their corps so distinguished and worthy, as it affords them proof that merit must sooner or later meet with its reward; that old age, inefficiency, and favouritism will no longer be the passport to the higher ranks of their service. A new era has dawned on their corps. A young and able medical officer is placed on the inspector's list. Let them endeavour to imitate his example, and earn that distinction which alone has raised him to it.

We trust the services of Dr. Armstrong will not be long lost to the navy, but that we shall soon see him actively employed, and heartily wish him every success in his inspectorial career.—*Morning Herald* of July 22.

NEW METHOD OF RESUSCITATING PERSONS APPARENTLY DROWNED.

THE SILVESTER METHOD.

This new method, according to its advocate, H. R. Silvester, Esq., M.D., possesses many advantages over the "ready method" of Marshall Hall; it is easy of performance, and may be employed along with those other means in which so much confidence has hitherto been placed.

The *Silvester Method* is "a simple imitation of natural deep inspiration, and is effected by means of the same muscles as are employed by nature in that process." In deep inspiration, we lift the ribs and sternum by the pectoral and other muscles which pass between the chest and the shoulders; so in the "new method" the ribs and sternum are lifted through the intervention of the muscles, *by steadily extending the arms up by the side of the patient's head.* In this way the cavity of the chest is enlarged, a tendency to a vacuum is produced, and a rush of air immediately takes place into the lungs.

Expiration is brought about by simple compression of the sides of the chest by the patient's arms. Thus "the arms of the patient are to be used by the operator as handles to open and close the chest."

The following rules are to be observed in inducing artificial respiration by this new method.

I. *Position.*—Place the patient on his back, with the shoulders raised and supported on a folded article of dress.

II. *To maintain a free entrance of air into the windpipe.*—Draw forward the tongue, and keep it projecting beyond the lips. By raising the lower jaw the teeth may be made to hold it in the proper position.

III. *To imitate the movements of respiration.*—Raise the patient's arms upwards by the sides of his head, and then extend them gently and steadily upwards and forwards for a few moments. [This action, by enlarging the capacity of the chest, induces inspiration.]

Next turn down the arms, and press them gently and firmly, for a few moments, against the

sides of the chest. [Forced expiration is thus effected.]

Repeat these measures alternately, deliberately, and perseveringly, fifteen times in a minute.

The advantages of this method, as compared with that of Marshall Hall's, as stated by its author, are the following, and may be thus studied in comparison:—

MARSHALL HALL'S METHOD.

Expiration is made to precede inspiration—the reverse of the natural order. In still-born infants forced expiration, at first (as they have never breathed) is, of course, impossible.

The warm bath cannot be employed during its adoption

When the patient is turned on the face (prone), and pressure made, the contents of the stomach are liable to pass into the œsophagus and trachea.

In the opposite position, "on the side, and a little beyond" (supinated), the tongue is apt to obstruct inspiration by falling back into the throat.

Both sides of the chest are not equally inflated.

The amount of air respired is exceedingly small, the actual capacity of the chest not being enlarged; (proved by experiment).

Lastly, we are told, that whilst the Royal Humane Society directs its attention mainly to the circulation, and Dr. Marshall Hall chiefly to the respiration, the new method of Dr. Silvester combines the advantages of both.—*Abridged from British Medical Journal.*

SILVESTER'S METHOD.

Inspiration may be made to precede expiration, or *vice versa*, at the will of the operator.

May be adopted when the patient is in the warm bath.

Contents of stomach not liable to pass into trachea.

Tongue effectually prevented from obstructing inspiration.

Both sides of the chest are equally inflated.

A larger amount of air is inspired than by any other method; (proved by experiment).

Selections from British & Foreign Journals.

ON SUPRA-PUBIC PUNCTURE OF THE BLADDER.

A discussion upon this operation recently arose at the Paris Surgical Society, on the occasion of the presentation of a memoir by M. Fleury, in which he stated he had often performed the operation with success, and considered it a very easy one.—M. Boinet regretted that the author had not stated whether his patients suffered consecutively from the adhesion of the bladder to the abdominal wall at the seat of puncture, and the consequent impediment to the functions of the organ.—M. Chassaignac could not admit the ill consequences said to result from these adhesions; such indeed not being observed in the case of the high operation for lithotomy, after which much more considerable adhesions take place. He did not, however, admit that puncture of the bladder was the simple operation it was stated to be by M. Fleury. When the abdominal parietes are very thin and the bladder is much distended, few precautions are necessary; but in very fat or very

muscular subjects serious difficulties may arise. We have then to employ a very long trocar, and to plunge it in very deeply; and there is danger of wounding the opposite side of the bladder—an accident which has occurred to M. Chassaignac himself.—M. Robert considered puncture of the bladder as preferable to forced catheterism, and has had recourse to it seven or eight times. He does not fear the accidents attributed to the retention of the metallic canula in the wound. The substitution of a gum-elastic catheter for this is sometimes very difficult, owing to the contraction or deviation of the track made by the canula, and the attempts may give rise to painful laceration and to infiltration. He therefore leaves in the canula for a fortnight, and then substitutes a caoutchouc tube. He observed, also, that the urine should not be allowed to run continuously from the canula. This should be plugged, and only opened every three or four hours, otherwise the bladder, contracting too readily upon itself, may abandon the canula.—M. Deguise could not understand how any difficulty could arise in introducing a catheter by the track of a canula that had remained *in situ* for eight days. For his own part, he introduced a catheter on the first day, and changed it on the third or fourth, and he had never found any difficulty in so doing. He considered the operation a very easy one, providing that a preliminary incision be made down to the linea alba. He employs also a straight, in preference to a curved canula, the latter being liable to injure the *bas-fond* of the bladder or the prostate. The trocar is to be introduced horizontally, and a gum-elastic catheter is to be passed into the canula immediately on the withdrawal of the stiletto, and to be fixed *in situ* when the canula has been slid away upon it.—M. Huguier maintained that there were conditions which rendered this a very difficult operation, and among these is particularly the ascension of the prostate and *bas-fond* of the bladder. When the bladder becomes much distended, it rises, like the uterus in pregnancy, above the superior aperture of the pelvis; and in complete retention the fluctuation felt through the rectum, so much spoken of by authors, cannot be felt, because the bladder becomes raised to a point beyond the access of the finger. Under these circumstances the prostate may be wounded, and that when in nowise enlarged. This occurred to Richerand, who was a great advocate of the operation, and very skilful in its performance. To avoid this accident the straight should be preferred to the curved trocar, and this should be passed horizontally above the pubis, instead of, as is usually directed, downwards and backwards. He seldom removes the canula before the seventh day, and has never known a straight instrument excite any irritation of the posterior wall of the bladder. He however takes the precaution of introducing a gum-elastic catheter into the canula and fixing it there, so that its smooth, rounded extremity, furnished with its lateral eyes, may project at least a centimetre beyond the vesical extremity of the canula.—M. Giraldeas could not agree with M. Huguier in admitting this ascension of the *bas fond*, the ease with which the organ may be punctured by the rectum, showing that the relation of the parts is not changed. This rectal operation has very often been performed by Mr. Cock, of Guy's Hospital, who finds it of much easier execution than the supra-pubic puncture.—M. Lenoir has been struck with the facility with which some surgeons decide upon the performance of this operation. For his own part, although attached to the hospitals for twenty years, he has never had recourse to it but twice. He thinks it should be reserved for extreme cases, when the rupture of the bladder seems imminent. Then the bladder is very distended, and its puncture presents no difficulty. He entirely rejects the opinion of M. Huguier as to the ascension of the prostate. This gland is solidly fixed, and if it sometimes extends above its ordinary level, it is only because it has become hypertrophied. It is possible that when it is greatly hypertrophied it might become punctured by a curved trocar; but M. Lenoir never ex-

poses himself to such an accident, because he never punctures the bladder for prostatic retentions. Such an obstacle being permanent, there is no chance of re-establishing the natural course of the urine, and the patient is exposed to the inconvenience of a hypogastric fistula for the rest of his life. In such a case, forced catheterism, by means of a conical instrument, is far preferable. It is an intra-urethral puncture through the prostate; and a false passage, an intra-prostatic fistula, is produced that will fulfil the functions of the prostatic portion of the urethra. The operation completed, the conical catheter should be replaced by one in gum-elastic—a practice much preferable to leaving in the metallic instrument.—M. Huguier added that although the anterior portion of the prostate is fixed by ligaments and aponeuroses which do not allow of its rising, its posterior part is in fact drawn up during distension of the bladder. The finger cannot then feel the globular or cylindrical fluctuation which has been described as one of the principal signs of retention; but this does not prevent a long and concave trocar, directed backwards and upwards, from reaching the bladder.—M. Chassaignac also admits this elevation of the posterior part of the prostate. He thinks the preliminary incision of the integuments, as recommended by M. Deguise, might give rise to infiltration; and he rejects puncture by the rectum as dangerous, because of the risk of penetrating into the recto-vesical cul-de-sac of the peritoneum.—*Gazette des Hôpitaux*, 1858, No. 59; and *Brit. and For. Medico-Chirurgical Review*.

NOTES OF A CASE OF ATONY OF THE INTESTINAL CANAL,

RESULTING IN RUPTURE OF THE COLON, PERITONITIS,
AND DEATH.

By N. BETHUNE, M.D.

E. S., a man of spare habit, aged 32, addicted to intemperance, who had been subject from infancy to frequent attacks of diarrhoea and dysentery, observed that his bowels were gradually becoming inactive about ten days before I saw him on the night of the 6th of May last. He habitually smoked and chewed tobacco to excess, often swallowing the saliva. Having an aversion to call in a medical man, he took the case into his own hands, and plied himself with the more ordinary purgative substances, finally taking a large dose of croton oil; all, however, with no effect, the bowels remaining passive. When I first saw him, he had had no relief for a week at least; yet he was cheerful, free from pain, complaining merely of a sense of distension from the accumulated contents of the intestines; the abdomen was tense and highly tympanitic, and no dulness could be detected in any spot in the course of the alimentary canal to lead to the suspicion that the obstruction was due to impacted faeces; the pulse was unaffected; the stomach very irritable, the ejected matters having at times a faecal odour. Being unable to detect any hernial tumor, there being no fever, no tenderness in any part, in fact, no inflammatory symptoms, castor oil and other purgatives were again administered in succession, but them he rejected by vomiting; calomel, also, in large and small (repeated) doses, with no effect. Full doses of opium at night succeeded in procuring rest for three or four hours, and relieving oppression. Copious injections of tepid water, soap-suds, turpentine, and ox-gall, introduced by means of the long-tube, brought away small quantities of semi-fluid faeces, and were almost invariably followed by free discharges of gas. Still the distension returned, and as the stomach became more settled, strychnine was repeatedly given in minute doses every second hour for three days, with this good result, that the oppression was relieved in a marked degree, while the emetic continued to bring away more or less gas at each administration. Matters continued in this state

till the evening of Sunday, May 16th, when after violent straining at stool, and the exertion of getting into bed, he suddenly complained of pain in the abdomen, which rapidly increased in severity, while the features shrunk, the pulse rose to 140, the skin became cold and clammy, and, after a night of intense suffering, he expired on the morning of the 17th, at five o'clock, the bowels not having acted for eighteen days.

I examined the body twelve hours after death. The abdomen was enormously distended and tympanitic. On opening the peritoneal cavity, a quantity of gas escaped, with a large amount of turbid fluid mixed with faecal matter. The small intestines exhibited the bulk of the normal colon, while the latter showed a corresponding amount of dilatation; both were coated in parts with recent lymph, and were of a dull-red colour. The contents were gas, and a yellowish pultaceous matter, perfectly free from odour. The course of the intestines was traced from the duodenum downwards, and on reaching the bend of the colon, between the ascending and transverse portions, I found a circular opening sufficiently large to admit a goose-quill, and with an extremely thin peritoneal edge, through which the contents of the intestines had escaped into the sac. On examining the orifice closely, it was observed to be seated in the centre of an old cicatrix of large size.

This appears to have been a case of pure atony, or rather of actual paralysis, of the muscular coats of the entire intestinal tube, from the stomach to the commencement of the rectum. It is a question how far the patient's inordinate habit of tobacco chewing and smoking may have tended to this remarkable impairment of muscular action. The rupture of the colon was evidently an accidental circumstance after violent straining, and would not, in all probability, have occurred if the intestinal wall had been of uniform thickness.—Toronto, May, 1858.—*Lancet*.

ON THE INFLUENCE OF

THE CERVICAL PORTIONS OF THE SYMPATHETIC NERVE AND SPINAL CORD UPON THE EYE AND ITS APPENDAGES,

ILLUSTRATED BY CLINICAL CASES, WITH OBSERVATIONS.

By JOHN W. OGLE, M.D.,

Assistant-Physician to St. George's Hospital.

The main object of this paper was the application to clinical medicine of the various experiments which have from time to time been performed, as showing the influence possessed by the sympathetic in the neck and the upper part of the spinal cord upon the iris and upper eyelid. Experiments and dissection as regards the lower animals have shown that the curtain of the iris, containing as it does two sets of muscular fibres, a circular set by which the pupil is contracted, and a radiating set by which it is enlarged, is under the domination of two separate and distinct sources of innervation. The third cranial nerve is found to control the circular or contracting fibres, and the sympathetic, by virtue of communications with the lenticular ganglion, is found to control the dilator or radiating fibres. Hence if the influence of the third pair be destroyed, the pupil becomes dilated, inasmuch as the dilator fibres, those presided over by the sympathetic, are unopposed; again, if the influence of the third cranial pair be left unimpaired, and that of the sympathetic be destroyed by section or extreme pressure, then the pupil becomes contracted. The author dwelt upon the history of the various experiments upon which the above statements are made, and also upon those from which it is concluded that in certain parts of the spinal cord resides the power or influence which acts upon the dilator fibres of the iris passing to that structure through the sympathetic via the roots of certain cervical and dorsal nerves. From these latter it is apparent that the same paralysis of the dilator fibres of the iris which follows section of

the sympathetic in the neck follows also the severance of such fibres as connect the sympathetic with the spinal cord, as also the section or destruction of the spinal cord itself in certain parts. Accordingly it might naturally be expected that any cause of extreme pressure acting upon the various portions of the nervous system before alluded to would, as in the various experiments before adduced, cause a contracted state of the pupil on the side corresponding to that on which the extreme pressure existed. And thus it was that Dr. Gairdner, of Edinburgh, first sought to explain those cases in which, along with an intra-thoracic aneurism, a contracted state of the pupil coincided. These cases of his were detailed, several of them not having been hitherto recorded, and to these others were added of his own observation, as well as some from other sources. Cases were next given in which pressure from aneurism upon the sympathetic in the neck had produced contraction of the pupil. In the third place instances were adduced in which extreme pressure from other causes than aneurisms had produced a like effect upon the pupil, as in the case of enlarged glands, carcinomatous deposit, &c. In the fourth place, bearing in view the intimate connexion between the sympathetic main branches in the neck and the cervical part of the spinal cord, he drew attention to several cases in which a contracted pupil had been observed in injuries of the spinal cord itself.

But in addition to a contraction of the pupil as brought about by section of the sympathetic, spinal cord, &c., as before spoken of, experimenters have also found that irritation or galvanism of the same parts of the nervous system will bring about a dilatation of the pupil, and that this dilatation may be effected even when section or extreme pressure has already given origin to contraction of the pupil. Accordingly, in these physiological facts an explanation was sought of certain cases in which pressure from aneurism, diseased products, &c., appeared to produce, not a contraction, but a dilatation of the pupil in man; and he instanced, in the fifth place, several cases in which the pressure from various sources was inestimably so much in extreme as to be, in fact, a source of irritation or stimulus, acting in the same way as it was found in animals, that any stimulus, mechanical, chemical, or galvanic, would act upon the sympathetic. In no other way could he explain the dilated state of the pupil which existed.

But besides the above-described effect upon the pupil of the eyes, in enumerating the various experiments in which the sympathetic, &c., was divided, special attention was drawn to a dropping of the upper eyelid, or ptosis, which on several occasions was observed. This phenomenon was explained on the supposition that along with the sympathetic fibres to the iris, those to the third cranial pair are also paralysed, and hence the levator of the upper eyelid, which is supplied from the third pair, is deprived of power to a greater or less degree. One or two cases were also adduced in which ptosis of the upper eyelid was observed in connexion with pressure about the neck, from aneurism of other sources. He offered the same explanation of the convergent strabismus which, in the hands of certain experimenters, was, along with other results, found to depend upon a division of the sympathetic cord in the neck. He supposes it to have existed by reason of paralysis of such fibres (in several animals, five or six in number) as pass up to join the sixth cranial pair of nerves, by which the power of this muscle becomes weakened, and its action counterbalanced by the internal adductor muscle.—*Lancet*.

OVARIOTOMY.

At the last meeting of the Western Medical and Surgical Society, Mr. A. B. Barnes made some remarks on *Ovariectomy*. He had been led to the consideration of this subject by a case on which he had lately operated,

and which was now progressing to a favourable termination. The patient was nineteen years of age; the disease under which she laboured was a large unilocular ovarian cyst, containing four gallons of fluid. There were no adhesions. Having given the details of this case, he adverted to his individual experience of operative procedure for the radical cure of ovarian dropsy, which extended now to 13 cases. In 8 of these (including that just alluded to) the cyst was removed from the abdominal cavity; in the remaining 5 the tumor, on account of adhesions, could not be extracted. Of the 8 removed, 2 died of the immediate effects of the operation, and 6 recovered; showing a mortality of 1 in 4, or 25 per cent. Of the 5 cases in which the disease could not be removed, all recovered from the operation. Thus, in the 13 cases the mortality was only 2, or 1 in 6½. He need hardly say, that as compared with other capital operations, this was a small per-centage of deaths. For instance, in amputations of all kinds, excepting fingers and toes, the mortality was 1 in 3; in the thigh it was 1 in 2½; in the leg, 1 in 3; in the arm, 1 in 3½; in hernia the deaths were as 1 to 2½; in ligation of the subclavian artery the mortality was 1 in 2; of the common iliac, 1 in 2½; of the internal iliac, 1 in 2½; of the external iliac, 1 in 4½; of the carotid, 1 in 4½. In lithotomy, in the adult, the mortality was from 1 in 5 to 1 in 2, depending upon the age of the patient and the size of the stone. In Civiale's cases of lithotomy the per centage of deaths was 1 in 3. The most unfavourable statistics of ovariectomy were those collected by Dr. Robert Lee, published in the "Medico-Chirurgical Transactions" for the year 1851. Out of 162 cases as many as 60 could not be removed; in 5 of these no tumor was present. Of these 60 cases 19 proved fatal, or rather less than 1 in 3; in the remaining 102 the disease was removed. Amongst these, in one case, both ovaries and the uterus were excised; in another the ovary, with part of the uterus, was removed; in 2 cases, both ovaries. Out of these 102 cases, 42 proved fatal, or about 1 in 2½. Dr. Clay, of Manchester, had had more experience in ovariectomy. In a paper read by him, in August last, in Edinburgh, he stated, that he had operated in 79 cases, and that 55 of these had proved successful, the mortality being about 30 per cent., or rather less than 1 in 3. He expressed his opinion, that for the future the mortality would not be more than 1 in 4; and that the existence of adhesions, so much dreaded, did not, as far as his experience went, interfere with the successful result. In these opinions the President perfectly coincided. Dr. Atlee, of Philadelphia, had operated in 36 cases, 12 of which were fatal, or 1 in 3. In 13 cases where the cyst was removed, occurring in the practice of Dr. Frederick Bird, taken from Dr. Lee's table, 4 were fatal, or rather less than 1 in 3. In 21 cases of removal recorded in Ranking and Braithwaite since the date of Dr. Lee's paper, 7 proved fatal, or 1 in 3. Hence he believed we were not only warranted in performing the operation in properly selected cases, but that it was our bounden duty to recommend it. For the last twenty years this operation had been submitted to the proper ordeal of discussion in the medical press, and in the medical societies throughout the kingdom, and the rate of mortality he maintained had been fairly established as at most 1 in 3. It had been said, that the favourable cases had, for the most part, been published, and that the statistics could not be depended upon. He believed that the favourable and unfavourable cases of ovariectomy performed during the last twenty years, had been more closely watched, and made known either by the operator, or by those who were cognizant of their performance, than had been the case in any other operation in surgery. If these cases were considered in the mass, he would ask, why should not 200 sufferers from ovarian dropsy be saved out of every 300, by the performance of this operation? We do not refuse to save 200 out of 300 suffering from other diseases where the mortality is similar. At any rate, he, for one, did not hesitate to ex-

press his opinion, that the time had now arrived when the profession would be wanting in their aid to the sufferers from this distressing and ultimately fatal disease, if they withheld from them any longer the benefits to be derived from the performance of this operation.—*Lancet*.

ON THE RELATION EXISTING BETWEEN DIABETES MELLITUS AND CARBUNCLE.

By Dr. A. WAGNER,

Chief Physician to the Dautzic Hospital.

The coincidence of inflammatory and gangrenous affections of the skin with melituria has been observed by Prout, Marchal de Calvi, Landouzy, Dr. Gooden, and others. Dr. Wagner inquires into the relation the two affections bear to one another, and arrives at the following conclusions, which he supports partly by the records of his own practice, partly by analysis of other writers:—

1. That inflammatory and gangrenous affections of the skin not unfrequently have been developed, and have repeatedly occurred, in persons who for a considerable time had laboured under chronic melituria.

2. That sugar does not appear to occur in the urine of persons affected with the skin diseases just mentioned, in whom diabetes does not exist.

3. That in rare cases of persons previously in perfect health, attacked by extensive carbuncular disease, which ran a tumultuous and fatal course, accompanied by septic symptoms, acute melituria has been observed.

In support of these views, Dr. Wagner brings forward an analysis of all the cases of inflammatory and gangrenous skin affections which had occurred to him for fourteen months, amounting to fifty-two. In none of them was any sugar found in the urine. They were as follows:—

		Males.	Females.
Carbuncle	...	5	3
Furuncle	...	9	6
Erysipelas	...	8	14
Erysipelas Phlegmonodes...	...	2	5

Forty-eight of these recovered; four ended fatally.

Two interesting cases are given in detail, which bear out the writer's third argument, and in which saccharine urine appeared in the course of severe and fatal carbuncular disease, attacking gentlemen previously in perfect health, and exhibiting no signs of diabetes.—*Archiv für Pathology. Anat.*, Band xii., Hefte 4 & 5; and *Brit. and For. Medico-Chirurgical Review*.

ON LEAD COLIC.

By Dr. BRIQUET.

The author examines the various theories that have been promulgated regarding the seat of this disease, and relates the results of his own investigation, which, it will be seen, differ from the prevailing views. The main point of the latter is, that he considers the site of the pain to be in the abdominal muscles—that it is a *myosalgia*. He finds that if palpation of the abdomen, in persons affected with the disease, be conducted so as to act only on the skin and the subjacent muscle, "so as, in a measure, to scratch the latter, and to respect the deeper heated parts," the characteristic pain of colica pictorum is at once produced, the site of the pain always corresponding to the points at which it is felt in the disease. The position occupied by the patient when suffering from the disease is the next argument in favour of the muscular theory: he is doubled up, and unable to lie flat; if the rectus is affected, he is bent forward; if one of the oblique, he is bent laterally. Thirdly, rest soothes, and may alone suffice to arrest, the pain. Fourthly, the abdominal pain of lead colic is at times accompanied by a state of hyperæsthesia of the skin covering the affected

muscles—a condition also met with in hysterical persons labouring under an analogous condition of the superficial muscles. Fifthly, the constipation has no relation to the pain; the constipation persists after the pain has been arrested. Sixthly, if the pain in the muscle be arrested, there will be no local or general suffering; and if the patient has no other symptoms than the disturbance in the *primæ viæ*, the functions will be speedily restored. Having established the views just enumerated to his own satisfaction, Dr. Briquet analyses forty-three cases, in order to determine what muscles were chiefly affected. The whole abdominal parietes were affected in six, the whole of the recti in ten, the right rectus in five, the left rectus in four, the two oblique in six cases. Other muscles were also found affected, but we have not space to reproduce the whole analysis.

The induced galvanic current being applied to forty-two persons affected with lead colic, in the author's words, it invariably gave instant relief, however severe and extensive the pain had been. This Dr. Briquet regards as a further argument in favour of his propositions, because Faradization is found generally to relieve muscular hyperæsthesia, hysterical pains of the superficial muscles, or rheumatic pains. Twenty-four of the patients remained permanently cured after the first galvanization; ten patients required a second application; seven required three applications; and in one only four Faradizations were necessary. The current is applied as directly as possible to the muscles supposed to be affected—one pole, in the shape of moistened sponge, resting upon one point of the muscle; while the other, terminating in a metallic brush, is carried over the different parts of the surface.—*Archives Générales*, Feb. & March, 1858; and *Brit. and For. Medico-Chirurgical Review*.

ON CHONDROSTEUS, AN EXTINCT GENUS OF FISH ALLIED TO THE STURIONIDÆ.

By SIR P. DE MALPAS GREY EGERTON, Bart, F.R.S.

Before the conclusion of his great work on Fossil Fishes, Professor Agassiz recognised in some fragmentary remains, found in the *lias strata* at Lyme Regis, unmistakable evidence of the existence, at that period of the earth's deposition, of a representative of the still extant family of the sturgeons. To this extinct fish he assigned the name *Chondrosteus*. The author of the present memoir has been enabled, by the examination of numerous specimens more recently acquired, to describe in some detail the external features of the fish, and the structural peculiarities of those portions of the exo- and endo-skeletons which have been preserved. In the former respect, the fossil differs from the recent sturgeon in having a shorter and deeper trunk, in the greater vertical expanse and wider divergence of the lobes of the caudal fin, in the median position of the dorsal fin, and in the absence of dermal plates on the back, belly, and flanks. Before describing the cranial anatomy, the author points out certain homologies between the head-plates of the recent sturgeon and the epicranial bones of the teleostean fishes, more especially with reference to the parietals, mastoids, and frontals; and explains that these conclusions have resulted from the examination of the inner table of skull, where the relative position and proportions of the component plates are constant, however much the outer or dermal layer may vary.

The remainder of the memoir is devoted to detailed descriptions of such parts as are preserved in the several specimens; and the author concludes by stating, as the result of his investigations, that Professor Agassiz was right in referring the *lias* fish to the Sturionidæ; that in some respects it evidenced a transitional form between the latter family and the more typical ganoids; that its food was similar to that of the existing mem-

bers of the family, but that it was procured in a tranquil sea, rather than in the tumultuous waters frequented by sturgeons of the present time.—*Proceedings of the Royal Society*.

ON THE STRUCTURE AND FUNCTIONS OF THE HAIRS OF THE CRUSTACEA.

By CAMPBELL DE MORGAN, Esq.

The object of this communication is to determine, by the observation of their anatomical relations, the uses of the hairs and similar appendages to the shell of the Crustacea. The author mentions the observations of those who have of late specially investigated this subject. M. Lavalie noticed the connexion at times of the canals of the hairs with canals penetrating the whole thickness of the shell, and the occasional continuity of the matter which filled the hairs with that which exists in the corresponding canal of the shell. M. Holland says that the canals of the shell which correspond to the hairs, are occupied by membranous investments, which embrace the base of the hairs, and seem to receive an extension of the nutrient system. He suggests that, amongst other functions, the hairs may possibly be connected with that of general sensibility. Dr. Häckel, in a recent publication, has shown that the canals of the shell and hair are lined by a continuation of the outer layer of the soft internal integument, which he calls the chitino-genous layer. He describes minutely the structure of the inner integument, and his account on the whole agrees with that given by Milne-Edwards; but he does not recognize the presence, in the canals, of any of the elements of the inner integument, except the external cuticular or chitino-genous layer; nor the connexion of these canals with the corium which lies beneath it, and which receives abundantly nerves and vessels.

According to the investigations of the author, it is with this deeper, vascular and nervous layer that the contents of the hair-canals and of the corresponding canals in the shell are especially connected. This can be readily seen in parts where the shell is thin, as in the foot-jaws for example. In a section made in such a situation, the canals leading to the hairs will be found to be often nearly as large as the bases of the hairs to which they correspond. They are lined by a thick membrane, which invests the cup-shaped cavity in which the hairs are implanted, and becomes so closely connected with the bulb of the hair itself, that it is often dragged out with it when the hair is pulled out. The cells and other elements of the deeper layer of the internal integument fill up the canal and pass on into the hairs.

Where the shell is thick, as in the claw of a lobster, the sheaths which are connected with the hair-bulbs and line the shell-canals can be demonstrated in the manner adopted by Mr. Tomes to show the existence of the dentinal fibres. If a section of a part of the shell of the claw where the hairs are implanted, and which has been previously softened in dilute acid, be torn through, the sheaths will usually be dragged out, and will be seen projecting from the torn edges, their contents often remaining in them. The connexion of the inner integument with these sheaths may be seen in sections of the claw with the integument still adhering to it, when on carefully tearing away the latter, its prolongations into the sheaths will be dragged out. That the hairs have some especial and important connexion with the inner vascular and nervous layer of the integument of the lobster's claw and elsewhere, seems probable from the observations made by the author on the contents of the claw. The terminal movable piece, the pollex, and the prolongation of the metatarsus which it opposes, the index, do not contain muscular fibre, but are filled entirely by a soft pulpy mass of corium. The nerves of the limb are large, but only some small branches will be found to go to the muscles;

the principal nerves pass on and terminate in the pulp which fills the opposing pieces of the claw. The author believes that it is the office of the hairs to establish a communication between the outer surface and this inner, and no doubt highly sensitive pulp, and that this is rendered still further probable by the comparison of the claws on the two sides. In the smaller claw the edges are sharp, and have fine tubercles along their margin; and the hairs are placed in a regular series of short tufts on each side of the tubercles, beyond which they do not project. But on the larger crushing claw the tubercles are massive, and no hairs are seen projecting above the surface. If, however, a section be made, it will be seen that a communication is established between the inner pulp and the surface by means of an abundant series of canals which terminate in bulbous extremities, sometimes projecting beyond the surface, sometimes lodged in depressions in the shell. This arrangement may be found in other parts; and in the crab's claw, where the tubercles are deficient, these hairless pulp-cavities almost entirely replace the hairs.

Here, then, lodged within the densest part of the shell, is a structure richly supplied with nerves, shut off from other parts of the body, and having communication with the surface only through the medium of canals, which are sometimes continued into short bristles, and sometimes terminate in mere bulbs. As a prehensile organ, the claw needs sensibility, but no force which the animal could exercise could make any impression on the parts within, through its dense tuberculated edges. On the other hand, it is difficult to assign any office to the bristles, and still more to the bulbs, mechanical or otherwise, unless it be that which has been suggested—that, establishing, as they do, a communication between the external surface and the nervous structure within, they communicate impressions, and are in fact tactile organs.

The author has satisfied himself, before the appearance of Dr. Häckel's paper, that the hairs were connected with the inner layers of the corium, and not with the chitinous membrane only; and he had seen indications in the lobster and larger crustacea of an arrangement of the pulp corresponding to the arrangement of the hairs. In the smaller crustacea, especially in the shrimps, he found a remarkable confirmation of his views. In the flabelliform processes, and even in the claws in these animals, he found that the structures within the shell were arranged in the form of tubes corresponding to the hairs, through which passed, from the deeper parts, fibres which were prolonged into the hair-canals. In the claw the nerve was traced to the inner termination of these tubes. The tubes in some instances merged internally into the general mass of the corium; in others they were truncated. Externally, or towards the margins, they presented open orifices, through which the fibres passed. The fibres, when drawn out from the hair-canals, often presented the plumose or serrated character, according to the form of hair to which they belonged. They could be traced for some distance down the tubes, and at times completely through them, but their deep connexions could not be clearly made out. Several modifications of this arrangement are described and figured. The author believes that the facts brought forward are sufficient to establish that the hairs of the crustacea are probably organs by which external impressions are communicated to the internal sensitive parts.—*Proceedings of Royal Society.*

M. GIRALDES ON A NEW STRUCTURE IN THE SPERMATIC CORD.

In this paper the author gives an account of certain tubular and vesicular bodies which he has discovered in the spermatic cord, and which he considers to be the remains of the Wolffian body of the embryo.

The structures in question, which he proposes to designate collectively by the term "*Corps Innominé*," form a small group, situated behind the tunica vaginalis, between that membrane and the spermatic vessels, and extending usually from the head of the epididymis as high as the point where the membrane is reflected forwards from the cord; sometimes, however, reaching much higher up; or, on the other hand, being more concentrated in the neighbourhood of the epididymis.

The "*Corps Innominé*" is found in the new-born infant, and in a more or less modified condition at all later periods of life; it has also been met with in the lower animals. To facilitate its detection and examination, the author has found it advantageous previously to render the surrounding tissues transparent, by macerating the spermatic cord in an acid solution, for which purpose he recommends the use of tartaric or citric acid in the infant, and of dilute nitric acid in the adult.

After this preparation minute whitish specks make their appearance in the situation above mentioned, which, when examined with the microscope, are found to be produced by small vesicles and convoluted tubes of varied and curious shape, surrounded by a plexus of small blood-vessels, which are distributed on their parietes. The tubes are short, tortuous, and for the most part beset with very unequal-sized and irregular varicose dilatations, and sometimes with short branches, ending in rounded swollen extremities. The vesicles are round or oval, like short closed segments of a varicose tube, and generally with irregularly protruding outline. The walls of both vesicles and tubes are formed of a fibrous connective tissue, and lined with epithelium; and they enclose a consistent but clear fluid, holding in suspension epithelium particles and transparent granules. This description applies to the condition of the structures in question, as found in the infant, and up to the age of from six to ten years; after this they begin to be atrophied, so that, although still present in the adult, they are usually less marked; but, on the other hand, they then sometimes contain a more consistent liquid, and are occasionally dilated, so as to constitute certain forms of cysts known to occur in the spermatic cord.

As already stated, the author regards the "*Corps Innominé*" as formed by the atrophied remains of the Wolffian body, and therefore comparable to the so-called "*organ of Rosenmüller*," which is found in the broad ligament of the uterus, and represents the vestiges of the Wolffian body in the female; and as certain vesicular productions in the broad ligament may take their rise from these remnants, so the author, as before remarked, has satisfied himself that the origin of some of the cysts of the spermatic cord may be traced to dilatation of the tubular elements of the "*Corps Innominé*" in the male.

The paper is illustrated by drawings, representing the objects in their natural size and situation, and also as seen under the microscope.—*Proceedings of Royal Society.*

RE-VACCINATION.—Experiments have been made under the direction of M. Vlemminckx, to ascertain the results of re-vaccination. 262 persons, between ten and sixty years of age, were re-vaccinated, and the following results obtained:—Of these, 180 had been already vaccinated, 82 had not; 67 had had small-pox. The operation succeeded only in 24; that is, in 9 per cent. Six of these 24 bore traces of former vaccination, and consequently the re-vaccination was of service only in 6 of the 180 already vaccinated; that is, in 3 per cent. 18 of these same 24 had had small-pox; so that the re-vaccination was successful in 18 of the 67 who had previously had small-pox; that is, in 27 per cent. These cases, therefore, show that re-vaccination is useful only in a very few cases; that the patient who

has suffered from small-pox has more necessity for re-vaccination than he who has been vaccinated; that it succeeds better the more distant the time of the first vaccination; and that susceptibility to it does not occur before the age of twenty-five. Hence re-vaccination before the age of twenty-five is useless; but it is of use in a very small number of cases between the ages of twenty-five and thirty-five. After thirty-five, it becomes necessarily and really a preservative influence.

EAST INDIA COMPANY'S MEDICAL SERVICE.

We have often been questioned as to the exact pecuniary value of an appointment in the East India Company's Medical Service, and have obtained the following statement from one of the Medical Officers of the Company, now in India:—

"Monthly Pay of the Medical Staff in India, calculated at the rate of 10 rupees to £1."

	Horse Artillery or Cavalry.	Foot Artillery.	European or Native Infantry.	Medical Staff while in charge of a Regiment.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Surgeon	56 6 8	48 7 4	41 10 10	30 0 0
Assist-Surgeon above 10 years' service ..	36 0 8	26 11 8	25 13 0	30 0 0
Assist-Surgeon, under 10 years' service ..	36 0 8	26 11 8	25 13 6	16 10 0

"An Assistant-Surgeon, doing duty under a senior medical officer, is entitled to £3 Palkee allowance, but to no portion of the medical staff allowance. A medical officer in charge of Europeans is also entitled to head-money, at the rate of £2 10s. per mensem for every 100 men; and in charge of native troops, £1 5s. 6d. per 100 men, provided he is not in receipt of the medical staff allowance; or then also, if the number is in excess of the full strength of his regiment. An Assistant-Surgeon, on first proceeding to India, can hardly expect to obtain a charge of his own for the first three years, but he may occasionally receive a slight increase of allowance as head-money, while in charge of detachments, either European or native.

"The deductions from his pay are as follows per mensem:—

	Medical Retiring Fund.	Military Fund.		Orphan Fund.
		Single.	Married.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
For first six months on arrival	1 4 0	0 11 4	1 5 0	0 12 6(a)
After that, and until completion of two years' service, ..	2 8 0	0 11 4	1 5 0	0 12 6
From second year un- til promotion ..	3 8 0	0 11 4	1 5 0	0 12 6
As Surgeon	6 8 0	0 18 0	2 0 0	1 0 0

(a) An increase of about 4s. a month for each child.

"I won't answer for these being the exact amounts, but they are near enough.

"There are many civil stations, the pay obtained from the charge of which ranges from £35 a month; so that, including what a man can make by his private practice, few of the stations are worth less than £50 a month. There are one or two worth £100 a month. An Assistant-Surgeon, however, is not likely to get a civil station until after two or three years' service, and then at first only a small one. As Civil Surgeon he has charge of

the gaol, dispensary, or any charitable medical establishment of the district; he has to examine all bodies found dead in his district (a most disgusting business in the hot season), and is expected to analyse the contents of the stomach in all suspected cases of poisoning, or to assist the magistrate in all medico-legal inquiries.

"N.B.—No man now entering the service on the Bengal side can expect his annuity of £300 per annum from the Medical Fund under twenty-six years' service. This is the great drawback to the service."—*Medical Times and Gazette.*

MR. MONLEY, the proprietor of the "Burlington," and of the hotel which bears his name at Charing-cross, died last week, and has left nearly the whole of his property to medical charities. In the early part of the present century he was a medical student at St. George's Hospital; but he left the pursuit of medicine, and became one of the most successful of the London hotel-keepers. He had been for many years an active member of St. George's, Bethlehem, and other hospitals. He has left £1,000 to Liston's widow; £5,000 to the Surgical Department of University College; £5,000, the interest of which is to support three Fellowships at University College, each to be held for three years; £1,000 to St. Mary's Hospital; £1,000 to the Lock; and £500 to Mr. Braine, his medical attendant. There are various legacies, among which are, £50 annually to six widows of St. James's, not recipients of parochial relief. The whole of the residue, amounting to upwards of £100,000, is left to found a Convalescent Hospital in connexion with St. George's, within seven miles of Hyde-park-corner.

QUEEN'S UNIVERSITY.—At a meeting of the Senate held on the 19th instant, Benjamin George M'Dowd, M.D., Physician to the Richmond, Whitworth, and Hardwicke Hospitals, was elected Examiner in Anatomy and Physiology to the Queen's University, in the room of the late lamented Professor Harrison.

ROYAL COLLEGE OF SURGEONS.—At a meeting of the College, held on Friday last, Mr. Peter Shannon was elected a member of Council, in the room of the late Sir Philip Crampton.

THE SALE OF POISONS BILL has been withdrawn by the Home Secretary.

DEATHS.

July 16, at Rock Lodge, Black Rock, J. Bellow, Esq., M.D., M.R.C.S.L., aged 69.
July 25, GEORGE ROSE, Esq., M.D., Ballyconnell House, County Cavan, and for 42 years Surgeon of the County Cavan Infirmary.

TO ADVERTISERS.

ADVERTISEMENTS will be received for the DUBLIN HOSPITAL GAZETTE by BROWNE & NOLAN, to the 12th and 28th of each month. The following is the

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CONTRIBUTIONS TO PÆDIATRIC SCIENCE.

By WILLIAM MOORE, M.B. TRIN. COLL. DUB.
M.R.I.A.,

Physician to the Institution for Diseases of Children,
&c. &c.

The subject of the nature and treatment of diseases incidental to children is rapidly attaining, in this country, its proper position on the list of medical science. Till within the last few years pædiatrics have been merely appended to midwifery and diseases of females; and I fear, in many instances, they scarcely met with the attention their importance entitled them to. For the past half century our continental neighbours have outstripped us in this particular race, by the establishment of special hospitals for sick children, and by the good fruits resulting from them, as evidenced in the works of Billard, Berton, Golis, and others. MM. Rilliet and Barthez, in the year 1843, gave an additional impetus to this branch of medicine by their valuable work on Diseases of Children, and the literature of our own school has had a similar tendency in no mean degree. In 1852, to the exertions of Dr. West, of London, and others, we owe the establishment of the Great Ormond-street Hospital for Sick Children, patronized by Her Majesty the Queen—the first special hospital for the treatment of diseases of children founded in this country. Manchester has not been behind in the race, and it is to be hoped that ere long the other metropolitan and thriving provincial towns will follow the example.

The statistics of the Registrar-General show, that of all children born amongst the better classes in England, it is found that from 25 to 30 per cent. perish under ten years of age; 30 to 40 per cent. amongst the humbler classes; and, under epidemic influences, from 60 to 70 per cent. perish within the same number of years.* In London the mortality of children under ten years is only two per

cent. less than it was fifty years ago. Of 50,000 persons dying annually in London, 21,000 children are under that age. In Scotland, in eight principal towns, about 46·50 perish before the end of the fifth year.

From the Report of the Census Commissioners, 1851, we find that in Ireland, from the first to the end of the fifth year, the proportion of deaths, for the whole country, was an average of 18 per cent. Of course the mortality of the towns was greatly in excess of the rural districts, which in many counties—as Down, Monaghan, Kildare, and Queen's—was only about 14 per cent. In the town of Galway it reached 20 per cent.; in Dublin city 20·2; in Kilkenny, 20·3; in Waterford city, 21·5; Limerick city, 22·1; Belfast, 22·7; Cork city, 23·5; and Drogheda town, where it amounted to 25·5 per cent. In this metropolis, as at least 20 per cent. die under 5 years of age, and 8 per cent. between 30 and 40 years of age, the mortality under 5 years has a relative proportion to the general mortality between 30 and 40 years of age of about 40 per cent.

M. Bertellin, in a paper recently communicated to the Academy of Science, Paris, stated that in France, in a period of ten years, there have been 9,700,000 births; and of these children 1,500,000 died within the first year of life. Out of 1,000 female births, 858 girls reach the age of 1 year; whereas 1,000 male births yield but 828 boys, one year afterwards. In round numbers, out of 100 children of each sex, from birth to 1 year of age, the annual mortality is 20 boys and 16 girls; one-fifth of the boys and one-sixth of the girls. This rule holds, with slight variation, over the whole country. And now let us turn for a moment to the mortality amongst children in one of our dependencies. In the city of Melbourne, according to the most carefully collated statistics, during the summer months, the number of births scarce exceeds the number of deaths. For six months in 1853 the deaths actually exceeded the births, in the ratio of 2 to 1. However, the proportion of deaths has been gradually reduced, and we find, in 1857, only 70 deaths for 100 births.

* Report of the Hospital for Sick Children, Ormond-street, 1857.

still this is a fearful mortality, and exceeds the records of the most fatal epidemics in this country. However, we are glad to hear that the Profession in Melbourne is becoming more alive to this painful subject.

It is needless to adduce further proof of the increasing interest which is daily being attached to this important branch of medical science. With regard to the practical bearing of this subject, the following cases may not prove wholly devoid of interest.

The first case I will adduce was that of S. C., aged four and a half years, a puny-looking boy, gradually losing flesh. His mother stated that for the last month he has been continually spitting—in fact saliva dripping from his mouth. He has incessant desire for cold water. On examination of his mouth and fauces I found nothing to account for this salivation; he had no glandular enlargement, or any affection of the tongue, and had never taken calomel in his life.

24th May, I prescribed grey powder, rhubarb, and aromat. powder, with a tepid bath at bedtime; the boy to get solid food.

27th May.—Salivation not quite so profuse; patient still losing flesh. I directed small pieces of ice to be given him, to allay the thirst, and that he should take a mixture containing chlorate of Potash and Catechu (Tinct.), gr. iij. of the former with viii. drops of the latter, every third hour. This treatment proved efficacious. I then gave the boy one drachm of cod-liver oil three times daily.

The following is a somewhat analogous case:—

July 7th.—A. H., three and a half years of age, a delicate boy, was brought to the Institution for Diseases of Children, Pitt-street. A flow of saliva kept his clothes moist by day, and soaked the pillow by night. On examining his fauces I failed to discover any cause for this excessive drain. He had no affection of the glands or tongue, no bad teeth. Suspecting the presence of worms, I gave him six grains of Kameela, which acted freely on his bowels, and brought away about a dozen small worms, as his mother said, like clipped threads. I now prescribed Chlorat: Potash, g. ii. every third hour. This patient did not again present himself at the Institution, so I cannot detail the result of this case, but I thought it worthy of remark, as being somewhat anomalous, and so like the one above mentioned.

There is a peculiar form of diarrhoea, in which treatment with sugar proves efficacious, as the following case exemplifies:—

John L., aged 16 months, a large, flabby child, has been suffering from an intractable form of stomatitis, with diarrhoea, for the last month, the dejections being copious, and of a peculiarly fetid character. Naturally concluding that the stomatitis and diarrhoea were owing to the vitiated state of the mucous membrane in general, I gave the child alterative doses of grey, rhubarb, and aromatic powder; and finding the diarrhoea still

persisting, I added powder of chalk and opium with trifling good effect. The stomatitis improved under the Chlorate of Potash, g. ii. three times daily, and a lotion of nitrate of silver, gr. xv. to the ℥i., applied every morning. And here I may mention that a sister of this boy suffered from intractable stomatitis some time since, and his brother died of cancrum oris. Their residence was close by the Liberties, one of the most unhealthy localities in this city. Seeing the evident putrefactive idiosyncrasy of this little patient, the diarrhoea unaltered, with only partial amendment of the stomatitis, the difficulty with which he could be made to take rice-milk and other suitable diet, I determined on trying the free use of sugar; and accordingly, July 29th, I directed that two teaspoonfuls of sugar should be given him every hour, and to continue the chlorate of potash mixture three times daily, mixed with sugar. White crystallized sugar was the kind employed.

July 30.—Since twelve o'clock yesterday his bowels have only twice been acted on, and there is a marked improvement in the character of the dejections, which are not so fetid. His mouth looks better, but still a whitish tenaceous crust adheres to the buccal mucous membrane. His mother tells me she rather exceeded my allowance of sugar, having given him a tablespoonful the first thing on awaking. Ordered to continue the same treatment. Result: the diarrhoea effectually checked; marked improvement in the stomatitis.

Having recently seen the remarks of Dr. F. J. Behrend* and Dr. Sieber,† on the medicinal use of sugar in diarrhoea and other affections of children, and the two cases of diarrhoea—one in a child aged three, and the other aged four years—in which half an ounce of powdered white sugar, given every hour, proved effectual when the ordinary means of cure had failed, I determined to try it in this instance, where there was a so decided putrescent tendency. In such cases the antiseptic properties of sugar come to our aid, besides being a form of nutriment which children readily take. I am not aware that this plan of treatment has been tried in this country; this is the only case, as yet, in which I have had an opportunity of testing it, and, to say the least of it, the result has been very encouraging.

The following cases tend to a further confirmation of the salutary effects of Kameela (*Rottlera tinctoria*) applied locally in cases of herpes circinatus. In the *Dublin Hospital Gazette*, November, 1857. I published the results of the powder of Kameela rubbed over the affected part on moistened lint; of late I have used a strong tincture, prepared by saturating the powder in rectified spirit, and painting the sore with this daily.

CASE 1.—James P——, aged seven years, has a ring of herpes circinatus, as large as a half-

* *Journal F. Kinderhj.* 1. 2. 1857.

† *Schmidt's Jahrb.* No. 4, 1857.

crown piece, on his chin for the last month. July 1st I painted it with the strong tincture of Kameela; two subsequent applications caused its disappearance.

CASE 2.—Mary Anne B——, aged eight years, seems thoroughly impregnated with herpes, as her head, legs, and arms testify. I painted the spots on the legs and arms with the tincture of Kameela, all of which a third painting sufficed to remove. In both these cases I gave internally alterative doses of grey and rhubarb powder, simultaneously with the local application. Sometimes a day or two has intervened between the applications of the Kameela, which happened in both these cases; but, when convenient, I should advise painting the affected part once daily, and continuing it, for a few times, even after the herpes has disappeared, as we know its liability to return. I may take this opportunity of mentioning, that the tincture of Kameela prepared at my suggestion with proof-spirit, by Messrs. Oldham, of Grafton-street (3iv. of the powder to Oj. of proof-spirit), was of a yellowish-red colour, slightly opaque, and deposited a muddy sediment; whereas, the tincture prepared with the same quantity of Kameela and rectified spirit was of a beautiful dark claret colour, perfectly transparent, and free from sediment, showing the complete solubility of the resin in rectified spirit.

The next case, one of "Double Empyema, with Dexiocardia and Sternal Displacement," I have thought worthy of some comment, as tending to exemplify the aggravated character of this disease, its occult and latent progress, and the amount of accommodation the adjacent parts can afford in many instances.

May 17th, 1858, John W——h, aged six years, was brought to the Institution for Diseases of Children. The intelligent but distressed expression of the boy, his pallid colour and bloodless lips, arrested my attention. On inquiry, I found that above eighteen months ago he had scarlatina, since which date his breathing has become more hurried, and his cough more troublesome, but within the last eight weeks they have become particularly distressing. His mother stated, that since he was an infant she never saw him lie on either side; and though she had repeatedly placed him in such positions, he invariably slept on his back. He never complained of pain, but occasionally, since he was two years of age, she has observed his breathing hurried, and the boy restless, and unusually thirsty. On stripping the patient, I was struck with the prominent form of the sternum; it seemed as if pushed diagonally from the left to the right side, its lower extremity being tilted upwards, forwards, and to the right side. Anteriorly the left half of the chest was convex and full, the right comparatively flattened; posteriorly, both sides were convex, and bulged out, but more on the left than the right side. The left side measured nearly an inch more than the right. On per-

cussion, the front of the chest generally was dull, but clearer on the right than the left side. Behind there was comparative dullness, from the ridges of both scapulæ downwards. The action of the heart was inaudible in the precordial region, and over the left side generally; it could be distinctly heard to the right of the mesian line, and at the top of the right lung. Respiration at the top of both lungs was bronchial, which was intermingled with an indistinct moist crepitus over both lungs posteriorly. Respiration 48 in the minute; pulse 120. The patient suffers from dyspnoea on making the least exertion, and has a cold dewy perspiration about the head and chest on awaking from sleep. His cough is racking, with difficulty getting up a spit, which, his mother stated, is occasionally tinged with blood. I prescribed an expectorant mixture, containing squill, Hoffman's anodyne, and camphorated tincture of opium, and applied a small blister over the base of the left lung, and painted the right side with a strong tincture of iodine. I afterwards applied the tincture of iodine to the left side, when the state of the skin after the vesication admitted of it. I directed a teaspoonful of cod-liver oil to be given three times a day to the patient, with generous regimen, in whatever form he could be induced to take it. Under this treatment the boy's recovery has been steady, though gradual; he is now playing about, having laid aside all medicines.

From the closest attention to the early history of this case, I am led to conclude, that about the age of two years, when the child was observed restless, his breathing hurried, and sleeping invariably on his back, that the right pleura was engaged, which the youth of the patient, unassisted (for there was no medical interference), brought to a comparatively favourable termination by vicarious means. Matters remained in this state till two years later, when, after an attack of scarlatina, pleuritis of one or both sides may have again been ignited, with little perceptible constitutional disturbance, till about eight weeks previous to my seeing him, when dyspnoea and general feverishness indicated that a fresh and unusually acute attack had ensued; and on this occasion the copious effusion into the left pleural cavity took place. As regards the latency of the previous attacks, the only evidence of their existence was the slight constitutional disturbance above adverted to, which never confined him to bed.

The diagonal displacement is evidently due to two causes—first, the contraction of the right side, after the early attacks; second, to the extensive effusion into the left pleural cavity, which contributed to shove the bone, as well as the heart and pericardium, forwards and to the right side.

The crepitus in this case was somewhat analogous to the primary crepitus of pneumonia, and although audible during inspiration and expiration, was better marked when the patient coughed. M. Gendrin considered such a crepitus, as I have

described, due to the absorption of the pleuritic effusion, whereby the air is enabled to enter the portions of the lung which have been compressed by the effused fluid. In this view I should be inclined to coincide, and am further confirmed in it by the fact, that this physical sign increased, both in space and intensity, *pari passu*, with the general improvement in the patient. I think we may look upon this crepitus as a valuable addition to the stethoscopic signs indicative of progressive absorption in cases of pleurisy with effusion. As regards the treatment, in the majority of such cases mild alterative and tonic treatment, with local absorbents—as blisters, and tincture of iodine—with time, will be found most efficacious.

Meath Hospital.

CASE OF DISLOCATION OF THE FORE-ARM OUTWARDS.

UNDER THE CARE OF MR. SMYLY.

Although the practical Surgeon frequently has dislocations of the elbow-joint brought under his observation, yet the diagnosis of those injuries is sometimes most difficult, often rendered so by tumefaction rapidly setting in, or the complication of fracture at the articular extremities of some of the bones. It is, then, only by a thorough acquaintance with the natural relations of the osseous points, and by carefully comparing the joint with the opposite sound articulation, that the Surgeon can recognise the exact nature of the accident. The lateral luxations of the elbow are by no means of common occurrence, and therefore the narration of the following case of simple dislocation of the fore-arm outwards cannot fail to prove interesting to the practitioner.

John Reilly, aged twelve years, a fine, strong, healthy-looking boy, was brought to the Meath Hospital on the 22nd July, 1858, immediately after having fallen from a high wall, on the top of which he had been creeping all fours. He unfortunately placed his hand on a loose brick, which gave way, and caused him to be precipitated. On admission he complained of very severe pain in the right elbow, and his clothes being removed, the nature of the injury became manifest, from the prominence outside the external condyle of the humerus. The head of the radius was well marked, and the articulating surface of the humerus could be distinctly felt below and on the inside. An attempt was at first made to reduce the luxation in the same manner as one of the forearm backwards, by flexing the limb, whilst the humeral extremity of the forearm is drawn downwards, or, as Sir A. Cooper says, "bending the arm over the knee, without attending to the direction, outwards or inwards." By this manœuvre the muscles were put into vio-

lent action; and as the effort gave a great deal of pain, chloroform was called for, but before it could be brought, the reduction was effected, by pressing the head of the radius downwards, forwards, and inwards, the internal condyle of the humerus being at the same moment pushed in the opposite direction. The arm was then placed on a cushion, and a cold evaporating lotion kept constantly applied. No great amount of inflammatory action ensued; and although some trifling swelling of the joint remained, still the boy was well enough to leave the hospital on the third day after the accident.

These are not dislocations in the reduction of which much difficulty is to be expected, when recently seen; but, in the case just stated, the facility with which it was accomplished was most remarkable and satisfactory, when the pressure was made across the axis of the joint; proving that a slight amount of force will often accomplish the desired replacement of a bone, when made in the proper direction.

Richmond Surgical Hospital.

CASE OF GANGRENOUS ERYSIPELAS OF THE SCROTUM; WITH REMARKS.

By CHRISTOPHER FLEMING, M.D., M.R.I.A.

Surgeon to the Richmond Hospital.

The following case possesses some features of interest in its history and progress to entitle it to record.

James Feeney, aged 45 to 50, a labouring man, lately serving as a private in one of the temporary Irish militia regiments, applied at hospital, on the 10th July last, with difficulty in micturition, and swelling of the penis and scrotum. He was evidently a man much shattered in constitution. He had a wan, sallow look, and had laboured under symptoms of general anasarca some four or five years back. About three days previous to his application at hospital he observed, without any assignable cause, some fulness of the scrotum. It increased, and involved the penis; and he remarked that his urine escaped slowly, and in limited quantity. He did not suffer much pain; in fact, he had a sort of muddled, apathetic look, which would almost pre-suppose insensibility to pain. The integuments of the penis were found oedematous, the prepuce being so distended and distorted with serous infiltration as completely to overlap the glans, and pass considerably beyond it. The scrotum was swollen, hard, and tense, and had scattered over it, inferiorly especially, patches of purple ecchymosis, with marks intervening of old cicatrices; an erysipelatous blush was also visible both over it and the penis; and even over the region of the pubis there was a good deal of unnatural fulness. It was now ascertained that the man had an an-

tack in the scrotum, much like the present, about three years back, in connexion, as it would appear, with gonorrhœa, and that some suppuration and sloughing was the result of it. With those local symptoms a considerable amount of low fever was present, his pulse was remarkably feeble, and his prostration was extreme. He was at once admitted into hospital. When placed in bed an additional complication was discovered in shape of ascites, and considerable enlargement of the spleen. The heart sounds and lung sounds were tolerably healthy, some few bronchial râles being alone traceable in the bases of the latter.

The special condition of the scrotum was now carefully investigated, and the isolated character of the swelling ascertained. The whole could be satisfactorily raised up, as if *en masse*, from the penis. The perinæum was perfectly normal, and the entire tract of the urethra was equally free from any implication in the swelling. There was no appreciable distension of the bladder above the pubis, and when the orifice of the urethra was hit off, a full-sized catheter passed with ease, giving exit to only a small quantity of urine, very deep in colour, and with acid reaction.

The diagnosis and treatment of the case were now quite obvious. Incisions were freely made in those portions of the scrotum which presented the ordinary characters of incipient gangrene, the requisite cautions were adopted in the after-dressings, and stimulants were liberally administered. Next day, without any very remarkable increase in the severity of the constitutional symptoms, the local had greatly extended, patches of sloughy scrotum occupied the lines of the incisions made, and little or no discharge escaped. Along the chord and inguinal canals on each side, a general fulcra was manifest, reaching towards each lumbar region; a blush of redness, a mere blush, marked its course; and in the region of the pubis both were specially evident. For two or three days these local symptoms advanced, the constitutional being in a great measure stationary, when a gradual subsidence of the swelling over the pubis and along the right inguinal region took place, the sloughs of the scrotum shewed a disposition to separate, and the general swelling to subside, whilst all the local signs of inflammation increased on the left side, the breadth engaged, advancing so much as to occupy a space extending from the umbilicus along the line of the linea alba, to the corresponding groin and lumbar region.

10th July.—This day, the ninth after his admission into hospital, a mere trace of inflammation was visible along the right side. That over the pubis had disappeared, and the sloughs had all but separated from the scrotum, exposing extensive granulating surfaces investing the testicles. On the left side all symptoms had advanced, and a prominent bulging, with distinct fluctuation of air, mixed with fluid, was visible about midway between the loins and the pubis.

Here a free incision was made, which gave exit to a large quantity of sanious pus, heavy in smell, and loaded with air bubbles, and particularly copious when pressure was made from the direction of the lumbar regions.—Next day an immense cake of soft slough presented itself at the wound, and was removed. Without further particularising the progress or treatment of the case, it may be stated, that rapid improvement took place, both in the local and general symptoms; and that as regards its surgical aspect, full convalescence may be said to be established, the skin of the scrotum having surprisingly accommodated itself to the loss it sustained, and cicatrization being now almost fully completed.

His medical disease is stationary; indeed, any change is rather for the better.

REMARKS.

The above case of Erysipelas suggests many practical reflections, not the least important and interesting of which is that of the successful issue of the curative processes set up by nature, notwithstanding the complications with a disease supposed to influence materially the healthy constituents of the blood. The apparently idiopathic character of the attack is another feature worth noting. Idiopathic erysipelas seldom presents itself in the scrotum, and the recurrence of the attack would appear to confirm its nature in the present instance, as recurrence is by no means rare where idiopathic erysipelas is most frequent, such as in the face and scalp.

The last practical point, and not the least valuable, connected with the case, is the remarkable similarity between the local symptoms which were present, and those usually met with in cases of urinary abscess or extravasation of urine along some part of the tract of the urethra. The analysis of the symptoms detailed in this case, both local and general, will at once point out the great necessity of endeavouring to isolate those symptoms, in order to form an accurate differential diagnosis. Great assistance was derived from attention to the state of the urine throughout.

ARDEE UNION WORKHOUSE.

CASE OF RUPTURE OF THE UTERUS.

By F. ODEVAINE, L.R.C.S.I.,
Medical Officer to the Workhouse.

C. M., æt. 30, a woman of loose character, tall, muscular, and well formed, had been the mother of three children; and states that she had now again arrived at the full period, and that about three hours before admission she was seized with strong labour pains, during which the membranes broke,

and everything seemed progressing favourably, when she suddenly felt as if "something had given way;" this sensation was immediately followed by considerable flooding, with abdominal pain, and complete cessation of labour.

I saw her shortly after admission. The pulse at this time, though weak, was not very quick. She complained of abdominal pain, which was not much increased by pressure; the stomach was tranquil; she displayed no anxiety of countenance; and in fact, she did not look like a woman suffering under such a serious accident as rupture of the uterus. I could not detect, by external manipulation, any distinct evidence of the fœtus being within the cavity of the abdomen.

Upon making a vaginal examination, I found the parts generally soft, and the os relaxed, but I could not reach any presenting part whatever; there was some oozing of blood at irregular intervals. I ordered an anodyne, and left her for a very short time. Upon my return I found her much weaker; and though little blood had escaped through the vulva since her admission, still she appeared at this time as if internal hæmorrhage was taking place, the pulse having become extremely weak and very rapid, and she was evidently fast sinking. I immediately gave her some wine, and proceeded to turn.

The hand was introduced into the vagina with some difficulty, and passed the os, which immediately braced the wrist with some force. At this stage the palm of my hand came in contact with a large, smooth, and hard tumor, which lay towards the sacrum. This was the uterus, a rent in which had allowed my hand to pass into the abdominal cavity; by a little manipulation I succeeded in grasping both feet and bringing them down, and with some force a full-grown dead male fœtus was extracted, as also the secundines. Immediately after the head had passed the vulva, there followed three frightful gushes of blood, which must have been contained in the abdomen before I commenced turning, and which accounted for the alarming symptoms of internal hæmorrhage which this woman presented. She lived but a very short time after delivery.

I made a *post-mortem* examination 36 hours after death. The abdomen contained a good deal of fluid as well as coagulated blood. The intestines were tympanitic, and presented several rose patches of inflammation, as also some recent and slight adhesions in two spots.

My hand passed easily from above through a transverse opening in the lower and anterior part of the uterus into the vagina. The part ruptured appeared very dark, and was much softened, as the finger could be made pass through its structure, which was also thinner.

The pelvic dimensions appeared normal; the uterus was not very firmly contracted, and contained a little blood,

CASE OF RUPTURE OF THE AORTA, WITHIN THE PERICARDIUM.

TO THE EDITOR OF THE DUBLIN HOSPITAL GAZETTE.

SIR—On reading Dr. Lyons' communication on Dissecting Aneurism, in the *Gazette* of 15th July, I was reminded of the following case which occurred to me several years ago, the report of which I enclose for publication, should you consider it worthy of a place in your columns.

Your obedient servant,

65, Church-street, Inverness,
August 6th, 1858.

J. J. Ross, M.D.

The Rev. A. M., aged 52, had been on two or three occasions under my care, for a few days at a time, for slight dyspeptic symptoms, which were always relieved by nitrate of silver pills. In 1849 he had a smart attack of bilious and vascular congestion of the liver, since which period he enjoyed his usual health, though he appeared to be somewhat failing in strength, without having any particular ailment. He never complained of any pulmonary or cardiac symptoms.

In 1852 he went to assist in the administration of the sacrament in a neighbouring parish, where he preached with force and energy, on the 31st of July, the 1st of August, and again on the 2nd of August; and on the last-named day, while in the pulpit, he became faint, and swooned. Medical aid was speedily procured, but it was not till after considerable quantities of brandy and ammonia had been administered, that the state of syncope passed off; and then vomiting of bilious matters came on, for which prussic acid was given, followed by blue pill and aperients. Feeling better on the 4th August, he was taken home to his own house, where he passed a bad, sleepless night, with frequent vomiting, occasional tendency to faintness, and slight mental wandering; and next day, the 5th August, at noon, I saw him for the first time, when I learned the foregoing history of his illness.

At my visit he seemed pretty well, and expressed himself so, though the tongue was foul, the urine highly loaded with the lithates, and he looked "bilious;" he had no pain anywhere. I was immediately struck by his pulse, which was about the most extraordinary I had ever felt; it was intermittent, unequal; there were not two successive beats the same. In short, it presented every possible irregularity in the course of a few seconds, so that I was at once led to examine the cardiac region. Here I found the heart acting in a rolling, tumultuous manner, without strong impulse, but with a sort of rubbing, rushing murmur with both sounds, of which I could form no distinct interpretation; indeed I did not well know what to make of it. He did not complain of palpitation, but on being questioned he said he felt *anxiety* in the chest. I prescribed a hot turpen-

tine epithem over the scrobiculus cordis, and lower part of the chest, and directed eight grains of calomel with two grains of capsicum, to be taken immediately, and to be followed by repeated small doses of the sulphate and carbonate of magnesia, till the bowels were freely opened.

He continued pretty well and cheerful all day. From some cause or other the calomel was not given till about 10½ p.m. A few minutes after taking it, he got out of bed, took a turn across the floor, and lay down again. By-and-bye he got up a second time, and while he was in the act of getting into bed again, his wife (who had lain down on a mattress in the room) heard a loud snore, a second, a third, in rapid succession; and on rushing to the bedside to his assistance, she found him lying across it, dead, at a few minutes before eleven o'clock.

Next day, the 6th, I examined the body, thirteen hours after death. On turning over the sternum, the pericardium presented itself full, tense, large, and much uncovered by lung. A puncture gave issue to a quantity of turbid serum, and on enlarging the opening, the pericardial sac was found filled with a very large quantity of blood, partly coagulated, partly fluid. The heart was somewhat hypertrophied, particularly the left ventricle, and there was distinct cretaceous deposit along the fixed edges of the aortic valves. The aorta, immediately at its origin, began to be somewhat dilated, and this dilatation continued till after the giving off of the innominata. This dilated part was externally of a darkish-grey colour, and the proper elastic yellow tissue of the artery was quite soft, pulpy, and easily torn up into shreds. There was a rent in the coats of the aorta, on its right side, just after its escaping from behind the pulmonary artery, about midway between its origin and the point of reflexion of the serous layer of the pericardium upon it above; and between this latter and the outside of the artery proper was a layer of coagulated blood, which had forced its way downwards to the junction of the right auricle and ventricle posteriorly. A little lower down than this rent in the coats of the artery—that is, nearer the heart—was a large transverse rent in the reflected layer of the pericardium (which was softened and thinned), through which the blood had found a passage directly from the aorta into the cavity of the pericardium. The other organs of the body were not examined.

In this case disease of the aorta must have been going on for some time, which led to its softening and disorganization. Then, during the exertion of preaching, on the 2nd of August, the wall of the aorta gave way, and the blood escaping, tore up a space for itself between the vessel and the serous layer of the pericardium which is reflected at this part, just as happens in dissecting aneurisms between the coats of the aorta itself. Hence the original fainting of the patient at that time; but as the hæmorrhage was in no great quantity, he

rallied from this. Then, on getting out of bed on the night of the 5th, the serous layer of the pericardium (which now alone confined the aortal contents) gave way, and at once the blood poured out in large quantity into the pericardial sac, producing instant death, partly from the direct effect of the hæmorrhage, and partly from the compression thus effected upon the heart.

The tearing of the aorta, and the hæmorrhage from it, would alarm the heart, and disturb its action; and these two causes together would interfere with the due supply of blood to the brain; and to this it is that I am inclined to attribute the vomiting which supervened. It is probable that the slight delirium observed on the night of the 4th depended on insufficient nutrition of some portion of the brain, from the same cause. In one very remarkable and interesting case of dissecting aneurism of the aorta, reported by Dr. Todd, in the 27th vol. of the *Medico-Chirurgical Transactions* of London (1844), the cerebral circulation was so far affected as to lead to white softening of the brain, and paralysis. The sounds of the heart were remarkable in this case, being accompanied by what I have already described as a "rubbing, rushing" murmur. In the case of dissecting aneurism above alluded to, Dr. Todd states that "the first sound was accompanied by a bellows murmur," which "had a peculiar rumbling character, as if the blood had to encounter a considerable obstacle."

I would, in conclusion, venture to remark how exactly this case appears to correspond with, and to corroborate the view taken by Dr. Stroud, of the physical cause of the death of Christ, which he attributes to rupture of the heart.* If the "side" had been "pierced" here, there would, as in the case of our Saviour, have "come forth blood and water;" and as regards these appearances, rupture of the aorta within the reflected pericardium may be considered as identical with rupture of the heart itself.

NOTES FROM PUBLICATIONS ON INSANITY.

In the last annual report, by the physician of the Royal Edinburgh Asylum for the Insane (1857), are found several matters of interest, which deserve a passing comment. We shall notice one or two.

Among the patients admitted during the year, were eleven who were affected with idiocy or imbecility; of these, one "had been a very intelligent boy, until one day in school he was struck by the master with the ruler behind the ear. He soon afterwards lost his speech, and on recovering it in about six weeks afterwards, he was found to be quite silly; and continues to be still, after the lapse of ten years, an incoherent imbecile." Even

* A Treatise on the Physical Cause of the Death of Christ, &c. By William Stroud, M.D. London, 1847.

one case of the unhappy result of this ruling passion among pedagogues is worthy of being recorded, as a wholesome lesson to those who may be disposed to incredulity regarding the alleged danger of beating children on the head; and in reference to this subject we recollect, that it is not very long since a Medical Officer of a work-house in Ireland experienced no small difficulty in his endeavours to effect a discontinuance of this and other improper and illegal modes of punishment in the school of the union.

In considering intemperance as one cause of insanity, it is interesting to read that in the above named asylum, during the last twelve years, the proportion of cases arising from this as the ascertained cause, has been annually diminishing, the number during the last year having been to the total number admitted, as 5.5 to 100, a proportion which must be considered as very small, whether or not it be considered as indicating a diminished amount of intemperance in the community at large.

In the twenty-fourth number of the *Asylum Journal of Mental Science* is a valuable paper, from the pen of Dr. Arlidge, on the Construction of Public Lunatic Asylums, containing some excellent practical hints, and exhibiting, in a very strong point of view, the disadvantages under which public institutions for the insane in this country must continue to labour, especially as compared with similar establishments on the Continent, where the almost invariable rule appears to be, that the psychological physician lays down the plan of a new building, according to his own ideas of scientific requirement, and this plan is afterwards carried into operation, under his supervision, by an able architect. "No asylum superintendent is to be found, who has not various plans of renovation and improvement for his own institution, who does not see precisely the constructional arrangements which the insane require, and who has not very generally floating before his mental vision, asleep or awake, some grand scheme for a model asylum. Nor is this to be wondered at, when it is considered that the asylum building is the machine, through and by which the superintendent is to work out and develop his system of moral management; that, in short, it is an instrument of cure, of the adequacy, utility, and perfectness of which he must be the best judge." Among the advantages of the principle of construction advocated by the author of this paper, may be mentioned directly the following:—The assimilation of the condition of the patients to that of their ordinary life, by the separation of the accommodation for sleeping from that required by day, with its ordinary routine of duties, employments, and amusements; greater salubrity; and increased facilities for warming and ventilation; easier access to the airing-courts, offices, workshops, &c.; greater facility of supervision, on the part both of medical officers

and attendants; the necessity of a smaller staff of attendants; a considerable diminution in the actual cost of constructing an Asylum; and a removal of a great many of the objections usually made to the erection of a third storey to the building.

Selections from British & Foreign Journals.

CASE OF OVARIAN DROPSY CURED BY SIMPLE PUNCTURE.

By Professor OPPOLZER,

Wochenblatt der Zeitschrift der k. k. Gesellschaft der Aerzte zu Wien.

The subject of this interesting and unusual case was 42 years of age, and had menstruated regularly. Four years prior to her coming under observation she remarked a swelling over the pubes, accompanied with pain in the region of the left ilium. A year afterwards she became pregnant, and the delivery was natural. The abdomen, before this event, was remarkably large, and remained after parturition also much increased in size. Menstruation was re-established, and continued regular. The abdomen gradually attained the size which it presented on the woman being received into Oppolzer's Clinique. Pressure on the lower and left portion of the abdomen caused pain. Defecation was difficult, and the calls to pass water were frequent and distressing. There was no trace of albumen in the urine. The ankles were slightly oedematous.

The size of the tumor and the distressing symptoms rendered her unable to work. The operation of tapping was accordingly determined, with a view of affording relief. 32 pounds of a tolerably clear greenish-coloured opalescent fluid were drawn off, and on examination was found to be of alkaline reaction, and of sp. gr. 1035. It abounded in alkaline and chlorides; there was no colouring matter of blood nor phosphates.

After the operation, the dislocated organs, the liver and heart, returned to their normal position. The abdomen continued somewhat enlarged, and percussion indicated that some fluid still remained in the cyst. The uterus, which had been high up and immovable, was now easily reached and moved. The pains after two days disappeared, and she was discharged, with an injunction to return after some time to show herself.

Her condition after one year and twenty days is thus described:—Her appearance is blooming; the abdomen not in the least increased in size; the most carefully conducted percussion fails to discover any abnormal dulness; palpation detects no fluctuation; no remains of the cyst exist; the uterus is normal, menstruation natural, and the pains of which she complained have not returned.

No doubt could be entertained that in this case radical cure was attained by the simple operation of tapping.

SUGAR IN THE SWEAT.

Lemola communicated to the Academy of Science of Paris the case of a young man, aged 25, in whom this phenomenon was observed. The prominent symptoms present were profuse sweats, emaciation, weakness of the limbs, thirst, painful dragging of the back of the head, and defective vision. On examination of the sweat it was found to contain 2 per cent. of sugar. The quality of the food did not appear to have any influence on the amount of sugar in the sweat. In the urine there was only a proportionably small quantity of sugar, but the urea was augmented. The urine was below the natural standard in amount.

The quantity of expired carbonic acid was increased, leading to the conclusion that in this case the formation of sugar in the liver took place without the oxydation process in the lungs being interfered with.

According to the views of the author, the cases in which the function of the lungs is undisturbed, belong to the category of curable, whereas the opposite condition indicates an incurable lesion.

The case reported was perfectly restored to health.

DIURETIC EFFECT OF LEMONS.

A Russian medical officer, Trinkowsky, reports that in many cases of dropsy, which he has treated within the last seventeen years, he has observed the diuretic operation of lemons in a most remarkable manner, and even where other remedies had failed.

He is in the habit of directing that a lemon, freed from its skin, should be cut in pieces and sprinkled with sugar, and eaten by the patient. The dose at first to be one lemon in the day, gradually increasing the quantity, so that in one of his recorded cases 18 were consumed in 24 hours. If pyrosis be produced, magnesia is given; and if the bowels be acted on, the use of lemons should be intermitted for a day.

ACUTE CANCEROUS DEGENERATION OF A TESTICLE DETAINED IN THE INGUINAL CANAL.

By Dr. LEWINSKY.

Wochenblatt der Zeitschrift der k. k. Gesellschaft der Aerzte zu Wien.

The following case is one of great interest, as well from its rarity as from the difficulty of diagnosis. A man aged 30 had, from his birth, only one testicle (the right) in the scrotum; the other was situated a little above the external opening of the inguinal canal; it was of the same size as the other, painless, and hitherto had caused him no inconvenience, either in hard work, when the bowels were constipated, or during coitus. About a year since, after violent exertion, the man experienced a severe pain in this testicle, which, within twenty-four hours, became remarkably swollen, hard, hot, sensitive to pressure. The tumor,

which was of the size of a hen's egg, did not decrease by rest in bed for three weeks, while the sensibility diminished. The inflammatory symptoms returned on every exertion, and the tumor, now painful, attained the size of a goose's egg. All means employed having failed, the man was brought to Vienna; he was found to be a strong, muscular man. In the scrotum the right testicle, of normal size, was found, and in the left inguinal canal a swelling of the size of a child's head, somewhat movable, not transparent. The swelling was not sensitive to pressure, except at one spot; fluctuation was perceptible. The glands in the vicinity were not enlarged; and, with the exception of an enlarged liver, there was no lesion of any organ.

Professor Schuh examined the case with the reporter, and in his presence an exploring trocar was introduced, when the fluctuation was most distinct. A little bloody fluid flowed through the canula, but on enlarging the wound with a bistoury, much escaped. With the necrotic blood there were little whitish-red particles, evidently portions of the parenchyma of the tumor.

Professor Wedl examined the foci microscopically, and there was no doubt of their cancerous nature. The wound was closed up, but after two days there escaped from the partly-healed incision some fluid, ill-coloured and puriform, with little foci in it. Effusion had taken place into the peritoneal cavity and into the right pleura, and the patient died in about three weeks after his admission into hospital.

The *post-mortem* examination exhibited cancerous degeneration of the lymphatic glands in various situations. The vena cava descendens passed through a medullary mass. The tumor which had been developed in the inguinal canal was of the size of a child's head, and from a small roundish opening at its highest point bloody cerebriform matter exuded. A section of the tumor manifested a distinctly medullary character. The microscopic examination exhibited the like appearances as those observed in the matter which escaped after the puncture. The substance of the testis was involved in the degeneration.

The medullary degeneration had evidently commenced in the testis, and had extended along the vas deferens to the lymphatic glands. The progress and the history of the case makes it probable that there had existed at first a genuine acute orchitis, the product of which had passed into carcinomatous degeneration.

The author, in conclusion, refers to the interesting observations of Roux and Lassus, on cases in which carcinomatous disease invaded the testis detained in the inguinal canal.

NASAL PARASITES.

Tarack Chander Lahory, an Indian Physician, describes a peculiar disease of the nares, named "Peenash," which is met with in India, and

which is caused by parasites. The animal is a snail-like worm, with eleven spirals, which are joined together by joints. The mouth and the eyes of the animal are visible to the naked eye. They nestle in the cribriform plate of the ethmoid bone, and gnaw the soft parts, producing a flat-nosed appearance, resembling that caused by syphilis. Severe pain, with an ichorous discharge, and sometimes bloody, is the effect of their presence. The treatment consists in the administration of tonics, and local applications containing turpentine and tobacco.

ON THE ADMIXTURE OF VIENNA POWDER WITH HYDROCHLORATE OF MORPHIA AS A MEANS OF RENDERING CAUTERIZATION PAINLESS.

The formation of an eschar by means of caustics, is an operation frequently employed in surgery, but as it is very painful patients often shrink from it. Dr. Piédagnel has just communicated to the Academy of Sciences a mode of performing cauterization, without causing much pain.

When Vienna powder is mixed, by means of a liquid, with hydrochlorate of morphia, a paste is obtained, which, according to this physician, when applied upon the skin, produces an eschar without exciting pain.

Three parts of Vienna powder (quicklime and caustic potash) are to be intimately mixed in the dry state, with one of hydrochlorate of morphia; chloroform, alcohol, or water, is then added to form a thick paste, which is applied by means of diachylon; after five minutes application the skin covered by the caustic becomes of a dull white colour; five minutes later a small, whitish, oedematous tumor forms at the circumference, and at the end of fifteen minutes the skin is brown and charred; the thickness of the eschar increases with the duration of the application, and becomes nearly equal to that of the paste employed. As to its diameter, this is always greater than that of the caustic, but depends upon the mode of application.

By adding a small quantity of gum to the paste, we may form little disks, of rather more than one-third of an inch in diameter, by less than one-fifth of an inch in thickness; when dried these become very hard, but they act more slowly, and must be moistened with water before being applied.

Hydrochlorate of morphia, adds M. Piédagnel, may be mixed in the same proportion (one fourth) with powdered cantharides; we thus obtain painless blisters. Fifteen grains of hydrochlorate of morphia so mixed has caused, when applied for ten hours, only slight and transitory drowsiness; but it is useless to employ such a large quantity, from five to seven grains are sufficient for a blister. The salt of morphia confines its action to the part on which the caustic is applied; there is no absorption, no intoxication; it is, therefore, a

local anæsthetic independently of the chloroform, as the same result may be obtained by using water or alcohol in the preparation of the paste.*

The physician to the Hotel Dieu having used this mixture only in establishing issues, we shall wait until experiments have been made on more extensive surfaces, before giving an opinion as to the value of the plan he proposes. As to the advice given by M. Piédagnel, to mix the salt of morphia with powdered cantharides, in order to render blisters painless, we recollect more than ten years ago pointing out the use of camphor as a mode of obtaining the same end. A layer of camphor, placed on the surface of a blister, prevents, as we then stated, any pain, whatever be the extent of the plaster. The quantity of the local anæsthetic agent must be proportioned to the size of the exutory; about a drachm and a-half is necessary when one of those large blisters applied in thoracic affections is prescribed. But if the sensibility of the skin is destroyed, its absorbent power is not, and strangury may be produced. *Experto crede Roberto*. Cognizant of this fact, we doubt M. Piédagnel's assertion, that hydrochlorate of morphia, mixed with powdered cantharides, may not produce symptoms of poisoning; the drowsiness experienced by one of his patients, in consequence of the application of a blister sprinkled with morphia, justifies our caution.

In cases where the addition of the narcotic agent should not render the application of the caustic completely painless, we might try the good effects of friction, rapidly performed with the ends of the fingers around the seat of action of the Vienna powder. Our contributor, M. Deschamps, has assured us that he has always, by this practice, prevented any painful sensation from the application of simple issues, even in young children.—*Bulletin Général de Thérapeutique*, 15th April, 1858, p. 317.

ON THE ADVANTAGE OF SUBSTITUTING GLYCERINE AND THE SALTS OF MORPHIA FOR MUCILAGE AND LAUDANUM IN THE COMPOSITION OF COLLYRIUMS AND INJECTIONS.

By M. DANNÉCY,

Pharmacien to the Civil Hospitals at Bordeaux.

The generally-adopted custom of introducing into some preparations, especially collyriums, a certain quantity of mucilage, with a view to fix the metallic salts which enter into their composition, and to prolong their action upon the affected

* The above appears a strange statement. I should hesitate to apply hydrochlorate of morphia so freely as the author recommends, to a surface deprived of its cuticle. At the same time there is probably a good deal of truth in what is above advanced, as ten grains of powdered opium have often been mixed with an ordinary blister, without producing any bad effect; the practice, however, seems not to be wholly free from risk.—TRANSLATOR.

parts, presents serious inconveniences, of which practitioners are unaware, but which pharmaciens experience without being able to remedy. Their duty is, in fact, to compound the prescriptions presented to them, however faulty they may be. Usage and time, which have consecrated certain formulæ, appear, moreover, to protect the latter against all rational modification. I do not mean to say that it is necessary to reject, or even to modify, those preparations received by all, the good effects of which have been established by experience. This doctrine of the necessity of preserving intact formulæ apparently defective, has been successfully maintained by a young pharmacien, of whom science has been too prematurely deprived. In making himself the champion of traditional formulæ, M. Polyd. Boullay has demonstrated, that those preparations always made under the same conditions (of error, if you will allow it), constituted definite medicines, having a constant and perfectly-known action; and that by modifying their mode of preparation, and rejecting from their composition such or such a substance, as inert or useless, their nature was changed, and a new remedy produced, which it was necessary to study. I admit this principle, and it is, accordingly, not with respect to official preparations, and to formulæ to be found in published treatises, that I advise the substitution of glycerine for mucilage in collyriums, injections, and other preparations containing metallic salts, but only with reference to the extemporaneous prescriptions of practitioners.

The principle on which I base my proposition is, that the metallic salts precipitate mucilage, and are, at the same time, themselves precipitated in corresponding quantity, leaving in the preparations in question only an indefinite, and even indeterminate, amount of salt, as the latter will always depend on the proportion of mucilage decomposed. Thus it has often occurred to me to prepare collyriums with sulphate of copper, in which the addition of the quantity of mucilage prescribed has not left a trace of the salt of copper in solution; hence the coherent precipitate which was formed, and rendered the use of the collyrium disagreeable, if not dangerous.

It remained to ascertain whether the proposed substitution of glycerine did not modify the therapeutic action of these remedies. The following is the result of experiment with the collyrium of borax:—

M. F. Dubois, formerly clinical clerk to Dr. Sichel, founded, some years ago, at Bordeaux, a dispensary for diseases of the eye, to which numerous patients resort for his advice. This physician employs several prescriptions of his able master, among which is the borax collyrium, the receipt for which has long been enrolled in all the formularies. This formula presents, in consequence of the addition of mucilage of quince seeds, the inconvenience above spoken of, imparting to the me-

dicine an unfortunate irregularity; and it is with a view to remedy this that I proposed to M. Dubois to substitute glycerine in the collyrium. The modification suggested has the additional advantage of enabling the collyrium to keep for a long time, without any appreciable change. The following is the formula:—Borax, 15 grains; pure glycerine, 2½ drachms; laurel-water, 4 scruples; distilled water, sufficient to make 3 ounces; dissolve for a collyrium.

As an example of the substitution of the salts of morphia for laudanum, the author proposes the following form for an astringent and soothing injection, so useful in a certain stage of blennorrhagia:—Pine-water, with gum (eau de pin gommée), 5 ounces; acetate of zinc, 15 grains; hydrochlorate of morphia, 3 grains; mix for an injection.—*Bulletin Général de Therapeutique*, 30th April, 1858, p. 358.

ON THE MEDICAL PROPERTIES OF PHOSPHURETTED WATER, AND ON ITS CHEMICAL COMPOSITION.

By M. STANISLAS MARTIN.

Whether the luminous property of phosphorus be due solely to its volatility, as Berzelius stated, or whether it be the result of its oxidation, as Fischer believes, it is certain that phosphorescence ceases so soon as oxygen is withheld from contact with this body; accordingly, we are obliged to keep phosphorus in vessels of dark-coloured glass, filled with water, from which the atmospheric air has been as completely as possible expelled. Notwithstanding this precaution, a chemical action takes place in time, to the detriment of the water, which becomes strongly acid, and almost always phosphorescent.

In discovering phosphorus, Brandt and Künckel have enriched therapeutics with a medicine remarkable for its stimulating properties; and the only reasons why French physicians do not use it more extensively is, that its manipulation and application are as difficult as it is dangerous, because phosphorus being insoluble in water, can be only imperfectly divided, unless recourse be had to sulphuret of carbon, rectified alcohol, ethers, or fatty bodies, in which it is slightly soluble.

Struck with the physical and chemical characters presented by water in which phosphorus has been kept, it occurred to me that such water ought to possess medical properties analogous to those of the body itself; to ascertain this I administered it to dogs and rabbits in measured doses, and observed that its effects resembled those produced by the ethereal tincture of phosphorus taken internally, or by phosphuretted oil applied externally by friction. Hence, why should not phosphuretted water enter into medical therapeutics, so soon as we can administer so active an agent in such a manner, as to determine its doses with almost perfect certainty, and graduate them at will? Ex-

periments on the human subject alone can solve this question.

The phosphuretted water is prepared in the following manner:—

Eight ounces of fully aerated distilled water are placed in a large glass matrass; six grains of phosphorus, laid on a little glass disk, are then suspended in the matrass by means of a thread, of such length that it shall not touch the water. After standing some hours, and under the influence of a slight elevation of temperature, the phosphorus is volatilized, and occupies the whole of the interior of the matrass, in the form of white vapours and of phosphoric acid; decomposition of the atmospheric air takes place, and nitrogen is set free. The thread, with the fragment of glass attached to it, is withdrawn; the vessel is hermetically sealed and agitated until it regains its ordinary transparency. If any phosphorus remained on the disk of glass, the latter should be replaced in the matrass, and the process continued until the phosphorus is completely volatilized, which takes place more rapidly, in consequence of the introduction of fresh portions of air.

The phosphuretted water should be preserved in vessels of dark-coloured glass, furnished with ground glass stoppers; one ounce of the fluid should contain about three quarters of a grain of the active principle. The phosphorus is present either as such or as phosphoric acid, according to the procedure adopted; more of the phosphorus will have remained in the phosphorescent state, in proportion as less air has been introduced into the matrass; if it has been brought into contact with the air, it will be in a state of combination.

Phosphuretted water is precipitated by the salts of lead and silver; it assumes a blackish tint on the addition of salts of copper. Ammonia likewise precipitates phosphorus; this re-agent possesses moreover the property of destroying the phosphorescence of the fluid, as Lipowitz has shown. The phosphate of ammonia so obtained may advantageously replace that formed by double decomposition, and be prescribed in the rheumatic diathesis, as Edwards advises, or in cases of gravel, as Buckler and Mattée have recommended.

With lime water of known strength, the quantity of phosphorus or of phosphoric acid contained in the water, whether in the free or combined state, may be ascertained; it forms, in fact, a white, flaky, semi-transparent precipitate, which may be collected on a filter, washed, and dried. This precipitate is soluble with effervescence in nitric acid.

Phosphuretted water may be administered on sugar, in plain or sweetened water, in a mucilaginous mixture, or in an aromatic or mucilaginous infusion; it is given cold. The dose varies according to the age, sex, or temperament of the patient; it offers a very great advantage over the ethereal tincture of phosphorus, inasmuch as if the tincture in question be added to a mixture, the

phosphorus separates and is precipitated in a pulverulent state, which may give rise to great danger, and even cause death.

The antidote to the preparations of phosphorus is, water charged with chalk or calcined magnesia, or with whites of eggs; emollient drinks should subsequently be given in great abundance.—*Bulletin Général de Thérapeutique*, 30th April, 1858, p. 360.

CAUSTIC LINT.—NEW TREATMENT OF ULCERS.

Nitrate of silver is never applied to sores, except in the solid state or in solution. In the former case its action is often too severe; in the latter it is sometimes too transient. M. Riboli has conceived the idea of dissolving nitrate of silver in a small quantity of water, soaking pledgets of lint in the solution, and drying them. This caustic lint, applied to ill-conditioned ulcers, produces a more permanent effect than the remedy in a liquid state; and as the author proposes different degrees of concentration for the solution, the activity of the treatment may be varied, according to the nature of the case, and the more or less advanced stage of the affection.—*Bulletin Général de Thérapeutique*, 30th April, 1858, p. 379.

ON THE PREPARATION OF LIQUID TARTRATE OF POTASH, AMMONIA, AND PEROXIDE OF IRON.

By M. CARRIE.

The pharmacological labours of MM. Soubeiran and Capitaine, as well as those of M. Mialhe, have placed the potassio-tartrate of iron in the first rank among the numerous ferruginous preparations; accordingly it is at present extremely frequently employed in therapeutics. This salt being incapable of preservation in aqueous solution, on account of its tendency to rapid decomposition, M. Carrié, a pharmacien in Paris, has conceived the idea of insuring its solubility, and particularly of preserving it, by the addition of ammonia. The following is the mode of preparation recommended by the author:—

Take sixteen ounces of bitartrate of potash; dissolve one half in three quarts of warm distilled water; saturate this solution with pure sesquicarbonate of ammonia; add the remainder of the bitartrate; raise to a moderate heat, adding by degrees, and to excess, recently-precipitated and still moist peroxide of iron; afterwards filter, to separate the uncombined oxide; evaporate at the heat of a water-bath, until the cold liquor marks seven degrees on the saccharometer; add a few drops of liquid ammonia; shake; allow it to deposit during twenty-four hours; filter again, and preserve for use.

The preparation of tartrate of potash, ammonia, and peroxide of iron, thus obtained, is, according

to M. Carrié, a liquid of an agreeable taste, possessing a reddish-brown colour, keeping for an indefinite period, and containing one part of iron in nine of water.—*Ibid.* 15th July, 1858, p. 23.

COMPOUND SYRUP OF COFFEE IN HOOPING COUGH.

When whooping-cough has resisted the ordinary remedies, the following syrup, which is only the formula given by M. Delahaye, slightly modified, will often be found successful. "I have frequently tried it," states Dr. Courbassier, "in localities where whooping-cough appeared annually with an epidemic character, and it has rarely failed me." The following is the mode of preparation:—Take 8 ounces of Mocha or Martinique coffee, slightly roasted, in powder; treat it by percolation in boiling water, so as to obtain sixteen ounces of infusion; in this dissolve—

Alcoholic extract of belladonna, 4 scruples,
Alcoholic extract of ipecacuanha, 4 scruples,
Alcoholic extract of bark, half a drachm; add
Sugar, 16 ounces.

Dissolve with the heat of a water-bath, and strain. The dose for children from three to five years, is a dessert-spoonful, repeated three times a day—morning, noon, and bed-time. For younger children the dose should be one-half.—*Ibid.*

[From the well-known effects of coffee in spasmodic asthma, beneficial results might, perhaps, be expected in whooping-cough, from such a formula as the foregoing. The dose of belladonna appears, however, to be rather large for children, amounting, on a rough calculation, to about a grain.]

FORMULA FOR A NEW ELIXIR OF PEPSIN.

By M. MIALHE.

Since, thanks to the persevering researches of Dr. Lucien Corvisart, pepsin has been received into the rank of therapeutic agents, a number of formulæ have been proposed which do not seem calculated to replace advantageously those of the first preparation prescribed by M. Corvisart himself. It is well known that Corvisart administers pepsin either in its natural state—that is to say, in the pulverulent form—mixed with starch, an inert powder, adapted to insure its preservation; or in solution, mixed with syrup of cherries or the elixir of Garus.

These different preparations are certainly the best adapted for producing, between the alimentary bolus and the digestive ferment, the immediate contact which is to produce the metamorphosis, (an advantage which the other formulæ, latterly proposed, do not present in the same degree). However, I think the preference should be given to the ingestion of pepsin in the liquid

state, because it is easier to swallow a fluid than a pulverulent body; and above all, because under such circumstances it is much easier to mask the barm-like, rather nauseous taste peculiar to pepsin.

Now, syrup of pepsin, the formula for which has been given by M. Corvisart, does not admit of being long kept, and the pepsinated elixir of Garus too readily betrays the presence of the ferment, and leaves much to be desired in reference to taste. I have, therefore, at the request of some of my colleagues, endeavoured to devise a formula free from the objections just alluded to, and, I think, I have succeeded, by combining pepsin with a generous wine, with the addition of alcohol and of sugar, in sufficient quantity to conceal the peculiar taste of the ferment.

The following is the formula:—

Elixir of Pepsin.—Amylaceous pepsin, (prepared according to the method of MM. Corvisart and Boudault,) one drachm and a-half; distilled water, six and a-half drachms; white wine, (de Lunel,) fourteen and a-half drachms; white sugar, one ounce; spirit of wine, specific gravity 852°, three drachms; let all stand together until the sugar is dissolved, and filter.

This elixir has a very agreeable taste; women and children take it without repugnance, and even with pleasure. It is given immediately after each meal, in the dose of a table-spoonful, containing exactly the quantity of pepsin necessary for digestion, that is to say, fifteen grains.—*Ibid.*, 30th June, 1858, p. 540.

IMPROVED ADHESIVE PLAISTER.

M. Colson, as the result of twenty years' trial, recommends the following plaister in place of the ordinary diachylon, as it never gives rise to irritation or erythema. R. Olive oil, 500, minium, 250, yellow wax 185 parts. These are to be heated together and stirred round with a spatula until the mixture assumes a black color, when it is to be taken off the fire, and stirred until quite thick. It is then to be formed into rolls on a marble table.—*Revue Med. and Medical Times and Gazette.*

QUESTIONS AT THE EXAMINATION FOR EAST INDIA COMPANY'S SERVICE.

NATURAL HISTORY, ETC.

Monday, July 12, 1858.—10 to 1 o'clock.

DR. HOOKER.

Answer five or more of the following Questions.

1. What are the functions of nutrition in vegetables?
2. In what does the germination of a monocotyledonous seed differ from that of a dicotyledon?
3. What are the characters of the natural orders *Fumariaceæ*, *Crucifera*, and *Papaveraceæ*?

4. What plants yield sugar; to what natural orders do they belong; and what are the differences between grape-sugar and cane-sugar?

5. What are nut-galls; how are they produced; and what are their chemical principles and properties?

6. Describe the fruits of an apple, strawberry, mulberry, and pine-apple.

7. What are the principal anti-scorbutic plants; and to what are their properties attributed?

8. What are animal and vegetable charcoal; and in what do their properties differ?

9. Classify the principal vegetable poisons; and give the names and natural orders of the plants producing them.

10. What are the medicines obtained from *Ranunculaceae*, *Compositae*, and *Papaveraceae*; and what are the symptoms of poisoning by aconite?

11. Define the terms morphology, analysis, aëration, psychology, physiology, development, and gemmation.

12. What are the principal modifications of the auditory apparatus in the mammals, birds, reptiles, and crustaceans?

13. What are the divisions of the order insecta; and what are their transformations?

14. What is meant by polarized light; and how may it aid in recognising or distinguishing animal or vegetable substances, &c.?

SURGERY.

Monday, July 12th, 1858.—2 to 5 o'Clock.

MR. PAGE.

1. Describe the states of the circulation in the conditions named, respectively, active congestion, passive congestion, and acute inflammation, as exemplified in the eye or skin.

2. What are the chief signs indicating the commencement of traumatic tetanus; and how would you, generally, treat the disease in its earliest stages?

3. What would you do in each of the following injuries? (1) gunshot wound through the knee joint; (2) punctured wound in the calf of the leg, with free arterial bleeding; (3) simple fracture of the leg, with wound or rupture of either of the tibial arteries; (4) compound fracture of the leg, with wound or rupture of the posterior tibial and peroneal arteries.

4. State the principal arguments for and against opening the sac in operations for strangulated femoral hernia.

5. Describe "granular eyelids"; the conditions in which the disease so named is usually produced, and its most frequent consequences.

6. Describe the signs and results of the destructive inflammation which may follow a wound of a joint (say the knee joint).

7. By what diseases, in the adult, may the signs of calculus in the bladder be nearly simulated? and what are the best signs of calculus, next to that of its detection with the sound?

8. What are the symptoms and treatment of ovarian dropsy?

ANATOMY AND PHYSIOLOGY.

Tuesday, July 13th, 1858.—10 to 1 o'Clock.

MR. BUSK.

1. Describe the larynx, entering fully into its anatomy, relations to surrounding parts, and functions.

2. Describe the parts contained in the perineum, and ischio-rectal region in the male.

3. Describe the parts contained in the space bounded above by the lower border of the inferior maxilla, below by the os hyoides, behind by a line drawn from the angle of the jaw to the extremity of the great cornu of the os hyoides, and internally by the middle line.

4. Describe the parts exposed when the pectoral major muscle is removed.

5. Describe the mechanism of the heart's action, the sounds attending it, and their causes.

6. Under what circumstances, or what conditions of age, sex, stature, or configuration of the chest, is the extreme inspiratory capacity (vital capacity) of the thorax augmented or diminished? and mention its average inspiratory capacity of a healthy man about five feet ten inches in height.

7. Enumerate the various kinds of epithelium met with in different parts of the body, noticing the characteristic peculiarities and functions of each kind.

MEDICINE.

Tuesday, July 13th, 1858.—2 to 5 o'Clock.

DR. PARKES.

1. Describe the various conditions of surface which are supposed to give rise to malaria; and state what hygienic and medicinal measures you would recommend, if a body of troops were obliged to enter, and to remain in, a highly malarious country.

2. Describe the symptoms of Asiatic cholera; and state what measures you would adopt if that disease appeared in a town.

3. What are the symptoms and treatment of myelitis?

4. What are the symptoms, causes, and treatment of dilatation of one or both ventricles of the heart?

5. What are the physical signs of empyema; and what are the effects produced on surrounding organs by large collections of fluid in one or other pleura?

6. What is the composition of gall-stones; and what are the symptoms produced respectively by the passage of a gall-stone, and of a renal calculus?

7. Describe an attack of croup, of laryngismus stridulus, and of diphtheritis.

BRITISH MEDICAL ASSOCIATION.

TWENTY-SIXTH ANNUAL MEETING.—EDINBURGH, JULY 29TH, 30TH, AND 31ST, 1858.

We extract the following from the Address of the President, Dr. WILLIAM PULTENEY ALISON, F.R.S.E.

"No other profession, in the existing arrangements of society, rests so truly on a scientific foundation, i.e., on the application of intellect, according to the rules of science, to the acquisition and the appreciation of truth in nature; and so long as the plough, the loom, and the sail shall be the insignia of arts highly esteemed and zealously cultivated in this country, and on which its population is mainly dependent, we may be assured, that an elevation once attained by the science and arts connected with medicine, can only again be lost by inefficiency on the part of practitioners.

It may be useful, as well as interesting, during a brief period of relaxation from the toils of business, to reflect for a few minutes on the indications taking place around us, of change in various arrangements of social life, and more or less connected with the progress of science. If there are many and important changes, only understood by help of, and only properly regulated by those who understand at least parts of the science of political economy, i.e., of the laws by which the wealth and the numbers of different societies of men are adjusted, so it is equally true, that there are changes, connected variously with the former, by which the health and happiness of human beings are more directly and continually affected; and the lives of medical men are continually engaged in the pursuit, the comprehension, and the application of these laws. This is truly the occupation

of medical men; not only as to the advice they are called on to give on the application of the laws of the material universe, what we call laws of physics and of chemistry, and the powers granted to man over dead matter, but at least equally as to all those laws which characterise the two great kingdoms of organised and living nature, i. e., of vegetables, supported by the existing atmosphere and crust of the earth, and animals, supported directly or indirectly by vegetables. And the greater the facility with which, under the present arrangements of society, the results of the studies and labours of medical men, in the detection of truth on those subjects, can be brought to the assistance of their fellow citizens, the higher will be the estimation in which our profession will be held.

"The great idea of progress," says one of our best modern moral writers, 'i. e., that both nature and man have passed through different stages, and will probably pass through others, is the peculiar distinction or characteristic of modern philosophy. Humanity must have made some progress before it could look back on a less perfect past, and forward on a more mature futurity. Our present conviction of a law of indefinite progress we owe partly to the modern revelations of geology, unfolding to us the gradual development that our planet has undergone, both in its inorganic and organic forms. We owe it, in part, to the rapid progress lately made in various sciences or arts which augment the power of man; but the fresh power which man has lately felt to be put into his hands by the fresh knowledge only lately vouchsafed to him, has, perhaps, more than any other cause, emboldened him in his hopes and prospects of the future of society. What might not men do, what might not men be, if the great idea of the good of the whole were to direct, govern, animate, all those various powers they have acquired?'

"I need hardly remind you, that four centuries have not elapsed, i. e., one-fifth of the time since the Christian æra, since the art of printing and the invention of gunpowder, had begun to exercise the influence, now generally assigned to them, on the division of labour, and the very structure of society in Europe. How our friends the professors of chemistry and technology would then have been received here may be doubtful; but I should think it would have been their most prudent course not to try that experiment; for it is certain that some of the best advisers whom the sovereign of this country could select at that time, would have preferred the summary process of having all chemists hanged.

"But it is hardly 'sixty years since' that the very elements of physiology, as now understood, beyond the rudiments of anatomy, were so little understood among us, that the peculiar mode of development of organised bodies by a blastema, nuclei, and cells, fibres, and membranes, probably the most indispensable of the conditions of their existence, was unknown. The microscope was systematically mistrusted; auscultation and the stethoscope were unknown; two of the means therefore, to which we can now trust the most, not indeed hitherto as bearing directly on the treatment, but certainly on the diagnosis of disease, were not yet in existence; so also galvanism, and its relation to electricity and magnetism,—the communication of intelligence by galvanic wires,—even the formation of railways,—all the useful applications of steam as a moving power, at land or at sea,—most of the properties of gases,—the physiological principle of the formation of excretions, by the help of oxygen taken in at the organs of respiration,—the pathological principle of retention of such excretions, and consequent formation of poisons,—the theory of the origin of febrile disease by malaria or contagion,—and the properties and powers of the vaccine virus, vouchsafed by heaven as the means of arresting one of the most afflicting of these plagues—perhaps of guiding our researches after others—all these principles slumbered in the imagination of men then living around us, as completely as the very existence of the power of chloroform over human suffering did in the mind of our

own friend who still flourishes among us. Certainly, the connection of any of these things with the maintenance and numbers of mankind was still an obscure or disputed point; while, on the other hand, a young man entering on our profession, who had mastered longis and shorts, and the elements of mathematics, at one of the great schools, and was afterwards well read in the classics, was on sure grounds, and might fairly expect that academical honours, certifying the successful prosecution of such labours, would be held by his fellow citizens as sufficient evidence of his being qualified, as far as academical studies can qualify a man, to advise and direct them, as to the preservation or recovery of their health.

"I should deceive you very much, and injure the cause for which I speak, if I were to hold out that the successful prosecution of physical, chemical, or physiological truth, leads to contempt of literature; or that even independently of all scientific acquisition, literary training in early life, were it merely as an accomplishment, is not well worth the devotion both of time and of labour. But this I may say, that the two things are distinct, and will never henceforth be confounded. How far it may be possible to acquire both, in all who aspire to the highest honours in medicine, is still necessarily, and because of this early age of the true science of medicine, under the determination of experience; but this I may say, that no medical school can henceforth be deemed *par negotiis* which does not require of all who are prepared for their profession there a much more extended and varied course of scientific study, founded on the inductive examination of Nature, than was thought necessary anywhere up to the beginning of the present century. Besides giving the means of acquiring and securing the acquisition of general knowledge in various departments, every such school should give the means and provide for the encouragement of much more minute and precise knowledge of several individual sciences, were it only to ascertain what is, in the case of each individual, the department of knowledge or of practical usefulness in which Nature has fitted him to be chiefly useful. And lastly, in order that the sciences connected with medicine may exert over any school of medicine the degree of influence which is requisite for these purposes, it is quite necessary, in the present condition of social science in this country, that the small Council which, as we understand, is to be endowed with the power of regulating medical education, and to which alone we can look forward as permanently possessed of sufficient knowledge of the whole subject, and sufficient interest in the scientific departments of it,—shall be both partly constituted of medical men, and open to a more general influence of the opinion of the medical profession. And then I need hardly say that, along with the increased scientific foundation and increased social power, there must necessarily go an increased moral responsibility.

"We have an example of this kind of difficulty in reflecting on a subject on which I am aware it may be expected that I shall say a few words; i. e., in regard to homœopathy, and the view which it becomes such an assembly as this, of men who have truly studied the laws of Nature as influencing the history of diseases and the powers of remedies, to take of that subject. I would take the liberty of observing, that I believe it to be an example and curious illustration of those same principles (part of the primeval curse on our nature) whence has resulted the growth of empiricism, as an accompaniment of true science, in all ages; viz., credulity on the one hand, and the *vis medicatrix nature*, not clearly proclaimed, on the other; to which, in some one of its forms, certainly none of us can expect to see any termination, and which may be expected to diminish not so much in proportion to the progress really made in science as to the judgment exercised in adjusting the public opinion to the evidence of the scientific truths already known. I believe the delusion, already on the wane, to be most advantageously opposed, as well as most

truly characterised, as an example of human weakness common to all science, as injurious to all, most injurious where it can be even suspected that it has led to any personal animosity or over-estimation of our own powers, most likely soon to find its level, when we keep in mind the observation of one whose name, not only as one of our first poets, but as one of our most knowing and most benevolent men of the world, in the last age, has hardly yet 'gathered all its fame'—viz., Sir Walter Scott—that more or less of fraud does enter into the composition of almost every human character.

* The beggar begs with it, and the rich courtier
Gains land and title, rank and rule by seeming.
The churchman scorns it not, and the bold soldier will eke with
it his service.
All admit, all practice it; and he who is content
With showing *what he is* shall have small credit
In Church, or Camp, or State: so wags the world."

LARCH BARK.

TO THE EDITOR OF THE PHARMACEUTICAL JOURNAL.

SIR,—I have read with much interest a short article in your Journal for July, on the therapeutic virtues of larch bark, quoted from the DUBLIN HOSPITAL GAZETTE. It would appear that it has been used by several medical men in Dublin with considerable success; and as I have had my attention directed to it already, it may not be out of place to notify to your readers my slight experience of its use, since its introduction here, in the form of the tincture.

This preparation is similar to that described in your Journal, having a dark carmine colour and a powerful astringent action.

I have now prescribed it in several cases of chronic mucous discharges with powerful results, checking likewise hæmorrhages from several mucous canals in the body, especially the genito-urinary, for which it may be successfully prescribed, both locally (say equal parts of tincture and water) and also internally, in such cases as hæmaturia. I consider it may be well to continue our investigations into the therapeutical actions of the tincture of larch.

I am, your obedient servant,

JAMES YOUNG, M.D.

1, Melville-street, Edinburgh, July, 1858.

BELFAST BRANCH OF THE MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.

The stated quarterly committee meeting of this local branch of the above society was held recently, in the library-room of the Belfast Medical Society—Dr. Paterson in the chair. Surgeon Browne, R.N., the Treasurer, reported that the total amount received in subscriptions and donations, for the present year, was upwards of £120, which had been duly transmitted to the parent society, with a full and detailed list of the subscribers and donors for publication in the printed annual report, now just printed, and which would immediately be in the hands of the supporters of this most valuable society. Dr. Stewart, Hon. Sec., mentioned that it afforded him great pleasure to be enabled to report that the applications he had officially made to the members of the profession in the country districts, had been responded to promptly, liberally, and in the best spirit; the instances in which no replies had been received being comparatively few, and that several, though unable to subscribe now, had promised to do so next year. He laid before the committee the correspondence on this subject, which elicited the warmest approbation for its kindly tone and feeling. Dr. Nixon, of Antrim, was

unanimously elected a member of committee, in the place of the late much regretted Surgeon Bruce, of the town, and requested to use his influence in obtaining the support of the gentry, as well as the profession is his locality. The deputation which had been appointed to proceed to the country districts was now considered unnecessary, owing to the satisfactory and successful results above referred to by Mr. Browne and Dr. Stewart, and will not, accordingly, be required to act at present. The committee having heard with much pleasure the report of the several sums granted to the respective applicants they had recommended for relief at the late annual distribution in Dublin, and having transacted some further routine business, then separated.

DUBLIN HOSPITALS.—The Lord Lieutenant has appointed Sir Henry Marsh, Bart., to be a Member of the Board of Superintendence of Dublin Hospitals, in the place of the late Sir Philip Crampton.

QUEEN'S COLLEGE, BIRMINGHAM.—Dr. Heslop has been appointed Professor of Medicine; Dr. Bond has been appointed Professor of Chemistry. The Chair of Physiology and the resident Medical Tutorship are now vacant.

APOTHECARIES' HALL OF IRELAND.—At the annual meeting of the Council, held on the 2nd of August, the following were duly elected for the ensuing year:—Governor, Dr. Madden; Deputy-Governor, Dr. Wm. Madden, junr.; Court of Examiners, Drs. Betty, Boland, Holmes, Leet, McMunn, Moore, Mulock, Nolan, Owens, Shea, Messrs. Collins, O'Flaherty, and Shaw.

The Commissioners for Income duty for the War Department have decided that the gratuity paid to the Civil Surgeons on retirement was not subject to deduction for Income duty; and in some cases in which application has been made to them, they have directed that the amount deducted when the gratuity was paid should be refunded. This will put about £1500 into the pockets of our brethren. It is only necessary to make an application to the Under-Secretary for War, Pall-mall. It is to the persevering advocacy of Mr. Reddon that the Civil Surgeons are exclusively indebted for this decision, and we feel sure that they will find some means of evincing their sense of the good turn he has done them.—*Medical Times and Gazette.*

TO ADVERTISERS.

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CLINICAL OBSERVATIONS ON INJURIES AND DISEASES OF THE URINARY ORGANS.

By CHRISTOPHER FLEMING, M.D., M.R.I.A.,
Surgeon to the Richmond Hospital.

The following observations may be considered as a summary from clinical lectures delivered during the progress through hospital of the several cases recorded. They are not, for the present, arranged in any connected series; and I may remark, almost in the words of one of our ablest physicians, prefacing his invaluable clinical lectures on another subject, that if reference is not made by name to the many able authorities who have done so much for the investigation of that upon which I treat, the omission does not arise from any want on my part of a full appreciation of their merits, but from the consideration that mine are no more than clinical extracts from special lectures on special injuries and diseases of the urinary organs, that they do not contemplate even an attempt at any systematic or lengthened essay, and that they ambition no further than to present to the advanced student and to the junior practitioner, practical precepts deduced from long continued and careful clinical study.

Retention of Urine—Its Complications and their Treatment.

Retention of urine, partial or complete, is a symptom frequently contingent on injuries and on diseases of the urinary organs. Referable to many causes, which it is unnecessary here to specify, it is often traceable to obstructions in the urethra peculiar in their nature. Such obstructions may suddenly supervene, apart from a vestige of any local lesion, or they may be superadded to the latter, and be productive of most alarming results. Foreign bodies in the urethra are good exemplifications of such casualty; their presence in any portion of the tract of this canal must cause considerable anxiety; and hence their prompt

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detection and removal should be the first object of the surgeon. There are situations in which very irritating substances may be tolerated with impunity, but in the urethra unnecessary delay should be always avoided, as well from the delicate sensitiveness of the important organs of which it is the outlet, as from the local mischiefs which the presence of a foreign body must excite. It may be introduced into the urethra from without; it may be developed within it; or it may be arrested in its transit through it, from some one part of the urinary apparatus above, and arising from some one of those sources, such foreign body may occupy a more or less limited extent of the divisional parts of which the urethra consists, or may protrude more or less at either of its extremities, and must effect important changes in their normal relations and conditions. Thus I have seen the glans penis completely transformed as to its natural shape, and as to situation of orifice of urethra, by calculous concretions, as if moulded over it in obstinate and persistent phymosis, whether congenital or accidental; and I have seen other cases where similar foreign material has transformed the neck of the bladder, and the adjoining portion of the urethra, into a large pouch, constituting a sort of supplementary bladder, at the expense of that important viscus, and sometimes leading to complete obliteration. Such considerations entitle this subject to the special study of the surgeon.

The cases which I beg to subjoin will, I should hope, be found apposite illustrations of those statements.

CASE I.

Retention of Urine from Stricture—Impaction of broken piece of Catheter in Urethra—Its escape.

A pensioner in the Queen's service, aged between 45 and 50 years, and apparently in good bodily health, applied at the Netterville Institution with retention of urine, stating that his symptoms were so very urgent he had attempted to relieve himself, as was his custom, with a gum-elastic ca-

theter; that on this occasion the end of the catheter snapped off as he was withdrawing it; and that now the broken piece was impacted in a stricture under which he laboured for many years, and that this stricture was situated far back in the passage. On examining the catheter, I found it to be about the size of No. 4 on the guage, with a rusty stilette fitted rather tightly to it, and with about half an inch of its extreme end deficient. The symptoms of retention of urine were very urgent, but not more so than had been experienced on many previous occasions. The bladder was to be felt tolerably distended above the pubes, yet free from any appreciable amount of pain on pressure. The penis was full and turgid, and nearly semi-erect; and the urethra, in its perineal and anal portions especially, was so very hard, unyielding, and tender, that it was utterly idle to form any opinion as to the site of the broken catheter by any external examination. I at once admitted the man into hospital; directed a large emollient enema to be administered, a hip-bath to be quickly prepared, a mixture containing tartar-emetic and opium to be given at short intervals, and diluent drinks to be permitted *ad libitum*. Within a few hours I visited the hospital; the directions given were being carried out, a severe paroxysm of dysuria supervened during my visit, and out shot the broken piece of catheter, as here delineated,



followed by an enormous gush of urine. I now passed a gum-elastic instrument of medium calibre, into the bladder without difficulty, secured it there, allowed the urine to flow in an uninterrupted stream, continued the opium and tartar-emetic treatment at lengthened intervals, and in a few days the man left hospital, relieved from all his distressing symptoms.

CASE 2.

Retention of Urine from Stricture.—Long portion of Thorn-twigg substituted for Catheter; its Escape into the Urethra; its Removal by excision.

This case also occurred in a pensioner; he was about the same age, and in much the same condition of bodily health as the former. He had been for years the subject of stricture, and was in the habit of introducing small-sized catheters to relieve any accession of difficult micturition. He was employed in hay-making, when, being suddenly seized with retention of urine, he had no instrument near him, and, away from assistance, he manufactured a twig of thorn, of a size and length with that of the catheter he ordinarily used. He introduced it into the urethra; it passed in further than he expected, and every effort having failed to extract it, he applied at the hospital, having walked a distance of seven or eight miles to reach it. The twig was

twenty-four hours or more concealed in the urethra; its anterior extremity could be felt above the scrotum, and, with the finger in the rectum, the distal end was traceable in the membranous portion of the urethra. The bladder was empty; the penis was flaccid; the urine was flowing involuntarily; and the man was free from pain or fever, in the intervals of some paroxysmal attacks. I admitted him into hospital, and was enabled, with ordinary precautionary means, to seize the end of the twig with a urethral forceps, but found it was so softened and friable, that each grasp of the forceps failed to secure it sufficiently firmly to extract it; and moreover, that it apparently recoiled into the urethra at each effort. I now, with the assistance of Mr. Adams, who happened to be in the hospital at the time, had the urethra firmly grasped in the perinæum, and the foreign body as if pushed forwards towards the glans; when, feeling the end of the twig, in front of the scrotum, and fixing it, I cut down on it in the direction of the urethra, to the extent of about a quarter of an-inch, and removed it, its length and dimensions being exactly as marked in the accompanying woodcut.



I secured a gum-elastic catheter in the bladder,

of suitable size, adjusted the lips of the wound, and directed the bladder to be emptied at regular intervals. After forty-eight hours I removed the catheter. The wound healed without any trouble; no extravasation of any kind took place; and after about ten days the man left hospital, with his urethra in as perfect a state as his stricture would admit, and without a trace of fistula.

CASE 3.

Permanent Stricture of the Urethra—Bougie introduced and left in the Urethra; its Escape into Bladder; its Removal by Allarton's Operation.

The subject of this case was a gas-fitter; he was aged about 45 years, and had led an irregular life. For many years he laboured under stricture, and suffered from repeated attacks of retention of urine, from perineal abscesses, and from urinary fistula; he never submitted to treatment for any length of time; as soon as relieved from his prominent symptoms of suffering he would leave hospital; and ultimately he was in the habit of treating himself when he found the stream of his urine deficient, by the occasional introduction of a cat-gut, or such small sized gum-elastic catheter or bougie. On the last attack he was afraid of retention of urine, he passed a small No. 3 or 4 gum-elastic bougie to its full length into the urethra, and finding it tightly grasped, he rolled the penis and scrotum into his handkerchief, and ventured to go to his work without removing it; the urine, in the meantime, trickled along, and when returning to breakfast, he found, to his dismay, that the bougie had disappeared; he was satisfied that it had slipped into the bladder. Failing to get relief elsewhere, he applied to me a week after the accident. His sufferings were not then very acute, although there was some constitutional disturbance, and some paroxysms of dysuria seized him; the urine escaped as heretofore noted, almost guttatim, and there was no fulness in the region of the bladder. It was impossible to feel the bougie along any portion of the urethra, the whole tract of it being unnaturally hardened from protracted disease, and the perineum being one mass of irregular cicatrices. To attempt, at the time, to ascertain the condition of the urethra, would have been rash in the extreme; indeed the experiment had been made previous to his application to me, immediately after the accident, and had been productive of no benefit. Now symptoms of urinary fever set in, and with it considerable irritability of the bladder, and difficulty in micturition. At this period I attempted to strike the instrument in the perineum, guided by the sensations communicated to myself as well as by those felt by the man himself, but I utterly failed. I allowed the wound to suppurate, with the hope that I

might ultimately succeed, but was again disappointed. A long interval now elapsed, during which a succession of rigors occurred, followed by the usual train of constitutional urinary disturbance. His fever now became continued, his stomach irritable, his appetite failed him, and general debility and emaciation supervened. His symptoms assumed a most aggravated character. Micturition became more frequent and more difficult; the urine, heretofore, was acid, and although loaded with pus, was in quantity fair; its density was average; now it became highly ammoniacal; and stringy flakes of mucus, obstructing still more the tract of the urethra, distressed him excessively. The poor fellow left hospital in this condition; he was unwilling to submit to any operative treatment, and from his shattered state and prolonged urinary ailments, I did not urge him to it. Repeated attacks of retention of urine added to his misery; to relieve those, catheters were found to be indispensable, and after a few turns No. 6 catheter could be introduced. About this period I tried a silver catheter, and ultimately a sound, with a view to detect the bougie. The sensible signs of its presence were very unsatisfactory, and the rational were necessarily equivocal, from the complicated nature of the case. Worn out by his sufferings he again returned to hospital, and cried out for even temporary relief. Though obliged to use a small staff, I performed Allarton's operation of "Lithotomy Simplified," dilating with Weiss's urethral dilator. As regarded the operation, nothing could be more satisfactory; as rapidly as in the most successful lateral operation for the stone, the bougie was removed from the bladder, encrusted throughout with phosphatic deposit, but so soft and pliable, at the time, that it could be rolled up into any shape. Its length was about six inches, and its size that originally mentioned; and when struck by a sound or other metallic instrument, equally unsatisfactory evidence was given of its nature in the then moist state. Placed in a bottle, it assumed the coiled form represented in the wood-cut.



After the operation it was most gratifying to witness the rapid subsidence of the distressing sufferings during and after micturition. No hemorrhage occurred worth noting; the pain experienced was referred to the wound alone, and for three

or four days the relief was so great, and the general improvement so obvious, that every favourable expectation was being entertained of recovery, when suddenly nausea and vomiting, uncontrollable by any means which could be devised, set in; the stomach would retain no nourishment, fluid or otherwise; the secretion of urine ceased, and within a fortnight after the operation the poor man died, exhausted, his intellect continuing unimpaired until within a short period before his death. With extreme difficulty the kidneys and bladder were removed for examination. Nothing peculiar was detected as regarded either, beyond that condition throughout both, so constantly present in protracted cases of obstinate stricture; even in the pelvis of each kidney there were discernible patches of phosphatic deposit, intermixed with mucus. It was, as regarded the neck of the bladder, satisfactory to see that it was uninjured in the slightest degree by the operation performed.

A very excellent sketch of those morbid appearances is to be found in the Museum of the Richmond Hospital.

Attention being specially directed to the presence of a foreign body in the urethra, in cases such as the above, the only consideration for the surgeon is to accomplish its removal as quickly as it is possible; and this is the more imperative, as it is a remarkable fact, that in cases of this sort, there is the strongest disposition to a receding of the foreign body towards or into the bladder, no matter what its form or shape may be. Not unfrequent opportunities are afforded of witnessing this in the every day treatment of stricture with gum-elastic bougies or catheters. Should those instruments not be sufficiently long on the one hand, or unsafely protected at their anterior extremity on the other, they certainly will, more quickly than may be anticipated, recede into the urethra considerably behind its orifice, and, if not checked, will pass back into the bladder very rapidly; and this as well by a sort of vermicular or suction effort from behind, as by an increasing size of the penis in front, produced by irritation from their presence. This contingency I have often witnessed, and have known it to cause great alarm both to patient and surgeon; but I have never failed in obviating any casualty by at once grasping laterally the penis in the perineum, and firmly pressing it, with the foreign body within, towards the orifice of the urethra, whilst, with the fingers of the other hand, the glans is pushed back, and thus, by this double manœuvre, the removal of the foreign body secured; or where it has gone still further back, and its anterior end is still more deeply imbedded in the urethra, the same object can be equally accomplished by the finger in the rectum, and other appropriate manipulations; but in no instance should an attempt be made to test the site of the foreign body with a sound, catheter, or other metallic instrument, or

to remove it with forceps or other contrivance through the tract of the urethra, until every precaution is adopted to prevent its ingress into or towards the bladder.

Let it be effected how it may, the surgeon should adopt every means in his power for the prompt removal of any foreign body introduced into the urethra from without; he will often accomplish it in the healthy condition of the urethra, in the adult, and in advanced life, with some one of the appliances devised for the purpose; but in the child, and in the diseased urethra, difficulties too often present themselves, which cannot be surmounted by such measures, and which hence will oblige him to have recourse to operative procedures. Those details will, however, be considered when the other sources of foreign bodies are disposed of. I might mention other cases illustrative of this class, but I wish to limit myself to those which have occurred under my immediate observation, and which appear to possess more than ordinary interest.

CASE OF WOUND OF THE PALMAR ARTERY.

PRESSURE ON THE MAIN TRUNK.—CURE.

By W. COLLES, M.B.

Surgeon to Steevens' Hospital.

A young man, a waiter in a hotel, received a deep incised wound in the fleshy parts between the thumb and first finger of the right hand. There was a profuse discharge of blood. A surgeon in the neighbourhood applied a ligature to a bleeding vessel; the hæmorrhage ceased. In three days bleeding suddenly returned. The wound was bound up, and a compress placed on the radial artery; the bleeding ceased, and the man was sent to hospital.

Next day, as there was no recurrence of hæmorrhage, and the dressings were become soiled, all pressure was removed, and the parts exposed to the air. The bleeding returned again in two days, and was controlled by pressure on the radial artery. Ice was kept applied to the wound.

Again the bleeding returned in two days, and it was now found that pressure on the radial artery did not control it; it was necessary to apply the compress on the brachial; the patient is now himself able to apply pressure at once on perceiving the sensations which usher in the hæmorrhage. At first he made use of his fingers; afterwards a clamp of a very simple construction, very manageable and very effectual, made by Read, of Parliament-street, was loosely applied, which he could tightened at any moment. He wore it till a week had elapsed without the occurrence of any hæmorrhage. The bleeding had occurred six times in the course of a fortnight, at first profuse it afterwards gradually

diminished, but the quantity each time was considerable.

Several considerations prevented me from resorting to the operation generally recommended in these cases—to cut down, and secure the bleeding vessel. In the first place, the bleeding had either ceased or become very slight when I had an opportunity of seeing the patient; also, I considered that the previous inflammation had so altered and consolidated the tissues, that it would be difficult to know what parts were being divided; the structure of the artery, also, might have been so altered as to render it incapable of retaining a ligature if put on it; and in seeking for one vessel, I should have, probably, to divide others; thus adding to the difficulties and dangers. Besides all this, I do not think a surgeon justified in resorting to an operation, which may be painful, tedious, and even ineffectual, until he has failed in obtaining his object by any other of the many expedients recommended, and which would offer a chance of success; and on consideration of the very general success which attends our efforts to cure aneurism by pressure on the artery, at a distance from the disease, there is every reason to expect the same treatment would be successful in wounds of a vessel. The pressure might not entirely prevent the flow of blood from the divided vessel, but it would so modify its force and volume, that it would allow the divided vessel to take on the adhesive action, and thus become obliterated without any local interference. In this case the pressure was not continued long at any one time, and therefore the recurrence of the hæmorrhage must have retarded the cure; still something had been gained in each of the intervals, so that the vessel became gradually more contracted and consolidated.

Had we kept up constant pressure on some part of the vessel, by the fingers of assistants, or had we not been obliged to wait for the completion of the instruments to effect this object, I have no doubt the vessel would have been closed much more speedily.

There are two circumstances in this case worthy of attention: one is the recurrence of the bleeding almost always on the evening of the second day, and that without any known cause that could be perceived, either by the patient or attendants; the second is the fact of the pressure on the radial, at first effectual, afterwards being insufficient to command the bleeding; and that we succeeded, by removing the point of compression to a greater distance from the wound, and applying it to the brachial artery.

I consider that the treatment pursued in cases of aneurism may be very generally and successfully applied to the cure of wounded arteries, a class of injuries which experience and the records of surgery testify often required frequently-repeated operations; and at times all efforts to arrest the hæmorrhage prove ineffectual. In the case of

wounded artery we have this great advantage over the case of aneurism, that in the former the patient is generally in good robust health, while in the latter there is more or less of a diseased condition of body.

Selections from British & Foreign Journals.

ON EXCISION OF THE TONGUE FOR CANCER.

By JAMES SYME, Esq.,

Professor of Clinical Surgery at the University of Edinburgh.

There are few diseases more painful to suffer, or more distressing to witness, than cancer of the tongue. The concurrent testimony of all experienced practitioners is decidedly unfavourable to operative interference by removal of the diseased part, from its never affording permanent relief, and generally exciting, instead of retarding, the morbid progress, while all the means of palliation are extremely uncertain and inefficient. In circumstances so desperate, any practicable measure affording a reasonable prospect of relief would certainly be warrantable; and under this impression I have lately tried the effect of extirpating the whole organ. As the disease frequently exists for a long while without extending beyond the tongue, and yet rapidly re-appears after the affected part has been cut freely away, there seemed reason to think that if the whole texture showing this disposition to morbid action were removed, the patient might escape future trouble. Some reports had reached me of this having been done by cutting into the mouth under the chin, and then completing the operation by means of either a knife or the ecraseur; but feeling assured that it was impossible to accomplish the object fully and satisfactorily through the imperfect access thus afforded to the root of the tongue, I resolved to divide the jaw at the symphysis, and then draw the two halves aside, so as to get room for accurate dissection and ligature of the vessels.

G. S——, aged 47, a shoemaker, was admitted into the hospital on the 11th of November, 1857, suffering under extensive cancer of the tongue, which was diseased throughout its whole extent, except towards the root. He stated that only five months had elapsed since the commencement of his complaint, or, at all events, since his attention was first called to it. There was no glandular swelling, or any other sign of disease.

On the 9th of December I made an incision through the lip, and extended it down towards the os hyoides, then sawed through the thick part of the symphysis, and completed its division by cutting pliers; next had the two halves held aside while I dissected backwards, so as to cut and tie the lingual arteries near the corua of the os hy-

oides, and finally detached the tongue closely from the body of this bone. The edges of the wound were then brought together, and the patient walked stoutly to bed. Food was supplied by the injection of milk and beef-tea through a tube introduced into the œsophagus, and everything went on so favourably for several days that I entertained no doubt as to the patient's recovery; but on the fourth day he began to complain of uneasiness in the chest, had a quick pulse, and became feeble. These unpleasant symptoms rapidly assumed a still more serious aspect, and terminated fatally on the seventh day.

On dissection, the wound, larynx, and trachea were found in a satisfactory state, but the lungs were thickly interspersed with small indurations indicative of recent inflammatory action.

In considering this case, I felt at some loss to determine whether the fatal issue had necessarily resulted from the operation, or was owing to circumstances that admitted of prevention. The patient was ascertained to have been addicted to habits of intemperance. The wound had been healed throughout its whole extent, so as to leave no room for the escape of discharges from the fauces; and from an early period after the operation experiments had been tried on the power of deglutition, with the effect of exciting a great deal of sputtering and cough. It seemed not improbable that, but for these unfavourable circumstances, the operation might have proved successful; and therefore, although certainly having no great desire to repeat it, I did not feel entitled to decline doing so, should a proper case present itself.

A few weeks ago I received an application from the hospital at Northampton to admit a patient, who appeared a very suitable subject for the purpose. He was 58 years of age, a remarkably respectable, healthy-looking man, without the slightest sign of glandular disease. He had suffered for nearly six years from disease of the tongue, and in the early part of last spring had undergone an operation by ligature in the Northampton Hospital. In consequence of the disease returning, he afterwards went to London (Guy's Hospital), where no operation was performed, but some strong applications were employed. He then went home, with the tongue greatly swelled, and diseased throughout its whole extent, except towards the root, where the texture retained its ordinary characters, so far as could be ascertained by the finger.

On the 31st of July I performed the operation precisely as on the former occasion, but instead of closing the wound throughout its whole length, left about an inch of it open at the lower part, and inserted a piece of lint to prevent adhesion. I also directed that no food should be given, except by injection through a tube. Again things went on favourably for a few days, and again I entertained sanguine expectations of success; but on the evening of the third day, symptoms of the same alarming character as in the first case showed

themselves; so that next day I saw there was no hope, and felt prepared for the fatal result, which took place on the following day.

On dissection, the air-passages were again found free from signs of disease until they reached the lungs, where there were extensive indications of recent inflammation.

In both of these cases it was manifest, from inspection of the mass removed, that no other operation could have accomplished complete extirpation of the tongue; and unless this were done, no better result could be anticipated than from the partial removal, which has always been found so useless and objectionable. On the other hand, I felt satisfied, from the similarity of the symptoms and result, that the operation, if not certainly fatal, must be one of extreme danger; and as, even in the event of success, the permanency of relief would still admit of question, I think there should be no hesitation in deciding against the repetition of this procedure. In promoting the progress of surgery, it is hardly of more consequence to determine what is expedient than to ascertain what is not expedient; and I venture to hope, that the experience now related may not prove useless, by saving others from the disappointment I have myself experienced.

Edinburgh, August, 1858.—Lancet.

NOTE ON THE ABOVE CASE, BY THE EDINBURGH CORRESPONDENT OF THE MEDICAL TIMES AND GAZETTE.

I have learned that the cause of death in this case was, as in the preceding, a form of lobular pneumonia, probably closely allied to the pyæmic. In each case the wound, both in its external and deep parts, was doing well; in neither had any secondary hæmorrhage occurred; in neither was the patient carried off by a disease having any especial connexion with the particular operation which had been performed. Why should excision of the tongue cause pneumonia, any more than excision of the upper jaw? Unless recourse be had to some fancied influence upon the pneumogastric, by the cutting away of the nerves which supply the tongue, we know of no answer to this question. The one operation is apparently as formidable as the other; yet experience has proved that removals of the upper jaw are attended with exceedingly little danger; while the only two British cases in which, as far as I am aware, the whole tongue has been removed, have ended in death. Let us not be hasty in concluding from this, that the operation is essentially one of extreme danger. We meet every day with the strangest coincidences. It may be that the next half-dozen excisions of the tongue will all be successful. Nothing is more common than for peculiar events to go in batches, and runs of good and ill luck are proverbial. I will own to sharing in the keen disappointment which Mr. Syme must feel at the termination of his second case. The operation impressed me as one of those bold achievements of root and branch surgery, which, in their mere courage, deserve success. Having but too often before seen cancers of the tongue removed by ligature or knife in the most niggardly fashion—the fear of hæmorrhage preventing the operator from cutting an eighth of an inch further back than necessary—I was not a little gratified in witnessing an excision which, in its utterly different character, seemed to justify hope of a very different result. Nor does the

disappointment in this instance prevent me from still feeling that surgery is indebted to Mr. Syme for demonstrating that such an operation is practicable, and that, too, without any very alarming loss of blood. It will be replied, that two human lives have been sacrificed for the sake of performing an out-of-the-way piece of surgical daring; but let us look at the fact fairly. Human life is a thing which varies very greatly in value. We have not now to do with that of a healthy lad, just leaving school, or with that of the father of a young family, himself sound in wind and limb. Before us is a poor wretch, whose days are misery, and whose nights are torture. He has a fetid sore on that very part of his organism in which such a thing is the most loathsome. No insurance office would take his life at a six months' purchase; and when death comes it will be in his most terrible of forms—death from pain. The cutting off of a few months of such life as is in store for such a man, if resulting from a well-meant attempt to alleviate suffering and prolong existence, need not surely weigh very heavily on the conscience of the surgeon. I am supposing, of course, that the patient has been made fully aware of the risk to be incurred, and is, as in nine cases out of ten he will be, a willing sharer in the responsibility. My present opinion, then, is, that if this operation were worth trying at all, it is worth going on with further. In the first place, it would be most illogical, and false to the interests of surgery, to conclude from the fatal results of only two successive cases, that it is a measure inseparably attended by extreme risk; and in the second, granting it be of very considerable danger, the nature of the disease against which it is had recourse to is yet such as to afford its warrant. It may possibly be found that the mode of operating adopted by Mr. Syme is capable of improvement in some respects; but I cannot feel a doubt that the principle he has acted upon, of attempting to go much further back in the removal of these cancers than has hitherto been the custom, will be extensively adopted in the future.

ON RUPTURE OF THE BLADDER.

By Dr. JOS. GRUBER, of Vienna.

Wochenblatt der Zeitschrift der k. k. Gesellschaft der Ärzte zu Wien.

Before relating the case of rupture of the bladder which came under his notice in the hospital, the author makes some preliminary remarks on the interest which belongs to rupture of the healthy organ, both as regards the diagnosis as well as the prognosis of such cases.

As to rupture of the diseased bladder, the event is not a rare one, occurring, as it does, in the ulcerative process of syphilis, tuberculosis, croupous inflammation. It is otherwise with rupture of the organ in a state of health, especially in those which may be termed *simple*, in contradistinction to *complicated*. The latter are associated, generally, with injuries of the abdominal walls, of the scrotum, and of the bones of the pelvis, in which case fragments of bone are sometimes driven into the bladder. Further, it may be complicated with rupture of an intestine, as in a case reported by M'Lean, in which the cæcum was found lacerated. Such injuries are usually the result of falls from a considerable height, the passage of a vehicle over the body, wounds—generally penetrating, but sometimes, though rarely, gun-shot. Of the last an example is to be seen in the anatomical mu-

seum of "Joseph's Akademie"—a ball incruusted with sediments of the urine, which had been removed from the bladder. The diagnosis of the complicated lesion of the bladder is in general easy. In most cases we can enter the bladder with a catheter by the passage through which the urine flows. In simple rupture of the viscus the physician can easily, by a superficial examination, be deceived, and suppose that peritonitis or enteritis exists. The mistake may occur, because, in many cases, immediately after the event, urine comes away, voluntarily or involuntarily, and symptoms referable to the bladder follow. Vomiting, constipation, fever, remarkable pain of the abdomen and meteorismus supervene generally—symptoms which we are wont to recognise as belonging to peritonitis, and which may lead to error, if the history of the case and the effects of catheterism be not attended to.

Simple rupture of the bladder—to which, in truth, the term "rupture" may be confined—takes place, in most cases, at the posterior wall of the body of the organ, and towards the upper and right side. The mucous and muscular coats may be lacerated—which, perhaps, is more frequently the case—or the peritoneal coat may be engaged. Inordinate distension suffices to cause rupture, an instance of which was noticed in the person of the famous astronomer, Tycho de Brahe, who died from this lesion, in the year 1601, in the Royal Palace of Prague. The effect of concussion is exemplified in the case which is here given.

A man, aged 32, had been previously in good health. On the evening of the 4th of June he drank an unusual quantity of spirituous liquor, and retired to bed at eleven o'clock. In the middle of the night he was awake by an urgent desire to pass water, and on attempting to descend from a so-called "two-storey-high bed," he fell from a height of about six feet, his belly striking against the edge of a wooden box. Although he felt pain in the abdomen, he was able to rise, and to pass urine without difficulty. The character of the urine could not be ascertained. The pain continually increasing in severity, he was brought to the hospital on the following morning.

On admission the patient complained of severe pain in the abdomen, and of ischuria; his skin was covered with cold sweat; he was anxious and restless, but his consciousness perfect. Pressure of the abdomen caused extreme pain; there was disposition to vomit, but no actual vomiting. Pulse 96. On introducing a catheter, which was accomplished without difficulty, about two ounces of urine were drawn off, which was of an acid reaction, specific gravity 1032, and of a dark-red colour, from the mixture of blood. From the history and the present symptoms, the diagnosis arrived at was "Ruptura vesicæ urinariæ, cum extravasatione urinæ," and a treatment was adopted calculated to moderate the expected peritonitis—viz., leeches and cold applications to the abdomen. On each

introduction of the catheter some urine of normal colour came away at first, but always towards the end coagula of blood. To free the bladder from the coagula, tepid water was once injected through the instrument. The patient finally died in convulsions, after eighty hours' suffering.

The *post-mortem* examination was performed by His *Magnificence* Professor Rokitsansky. There was nothing worthy of notice in cranium or chest. In the abdomen there was much brown, turbid, flocculent fluid. The peritoneum, especially that covering the small intestines, was red, and presented streaks of injection. The liver was granulated, and not more than half its normal size. The stomach presented hæmorrhagic erosions; the bladder contracted, and containing some ounces of bloody urine. In the posterior wall, and towards the right side and summit, a rent of an inch and a half in length, through the peritoneum, with purulent edges, below which was a second, only engaging the mucons and muscular coats. The fluid which was in the cavity of the abdomen, was examined by Dr. Heller, and found to contain the constituent parts of urine. The placing a patient labouring under similar symptoms in the half-sitting posture, and inclining to the left, and thus preventing a further effusion of urine into the peritoneal sac, is suggested.

Finally, this case is important, as lending confirmation to Skoda's statement, that inflammation of the liver often occurs without pain or consciousness on the part of the patient; and, in addition, shows that the liver may attain a high degree of the granular state without causing dropsy.

TANGHINIA VENERIFERA, OR CEREBRA TANGHIN.

The seed of this plant is used in Madagascar as an ordeal poison. Köl liker has likewise examined its effects. It has a paralyzing influence over the muscles, stopping the heart in from five to fifteen minutes. It resembles in action the upas antiar.—*Medical Times and Gazette*.

MEETING OF THE BRITISH ASSOCIATION.

The programme for the twenty-eighth annual meeting of the British Association, to be held in Leeds, next month, has just been published. The meeting will commence on Wednesday, the 22nd of September, under the presidency of Professor Owen. The first general meeting will be held in the Town Hall, on Wednesday, September 22nd, at half-past eight, p.m., when the Rev. Humphrey Lloyd, D.D., F.R.S., &c., will resign the chair, and Professor Owen, M.D., D.C.L., F.R.S., &c., will deliver an address as President-elect. The different sections will assemble in the rooms appointed for them in the Town Hall, for the reading and discussion of reports and other communications, on Thursday, Sep-

tember 23rd, Friday, 24th, Saturday, 25th, Monday, 27th, and Tuesday, 28th, at eleven, a.m., precisely. Person desirous of reading communications in any section are requested to give early notice of their intention by letter, addressed to the Assistant General Secretary, or to the Local Secretaries for the Leeds meeting. There will be seven sections, viz.:—A. Mathematical and Physical Science; President, Rev. W. Whewell, D.D., F.R.S. B. Chemical Science; President, Sir John Herschel, Bart., D.C.L., F.R.S. C. Geology; President, William Hopkins, Esq., LL.D., F.R.S. D. Zoology and Botany, including Physiology; President, Charles Darwin, Esq., F.R.S. E. Geography and Ethnology; President, Sir R. I. Murchison, D.C.L., F.R.S. F. Economic Science and Statistics; President, E. Baines, Esq. G. Mechanical Science; President, W. Fairbairn, Esq., F.R.S. On the Thursday evening there will be a conversazione in the Town Hall, commencing at half-past eight o'clock; on Friday evening Professor Phillips will deliver a discourse on the Ironstones of Cleveland; on Monday evening the President (Professor Owen) will deliver a discourse on the Fossil Quadrupeds of Australia; and on Tuesday evening there will be a conversazione at the Town Hall, commencing at half-past eight o'clock. The concluding general meeting will take place in the Town Hall, on Wednesday, the 29th, at three, p.m. The proceedings of the general committee, and the grants of money sanctioned by it, will then be stated.

QUARANTINE AT SOUTHAMPTON.—In consequence of the appearance of the plague at Bengazi, and of the suspicion of its existence at Alexandria, Mr. Widdie, the quarantine officer at Southampton, has received orders to visit all mail-packets from the East, in addition to those from the West. The practice of the quarantine officer visiting the Alexandrian packets at Southampton has ceased for many years.

The *Lancet* extracts the following account of the plague from the *Gazette Médicale d'Orient*:—"There is, unfortunately, no doubt as to the kind of epidemic which has for some time been raging at Bengazi; it is certainly the plague. The Ottoman government received, on the 23rd of July, the report of the Commissioners who were sent to the spot, and this report is certainly explicit. The usual characters of the plague are thus described:—High fever, wandering, prostration, vomiting, buboes, petechie, anthrax—the latter symptoms being less frequently met with than the former. The epidemic presents all the features of the plague, with its malignant character, its rapid course, and its spreading tendencies. The disease not only reigns at Bengazi, but has broken out in three of the four or five districts of which the province is composed. Derna, a sea-port town of between 10,000 and 15,000 inhabitants, has been especially visited. Bengazi had formerly a population of 12,000 souls; at the time of the arrival of the Commissioners the inhabitants numbered barely 4,000, owing to emigration and the numerous fatal cases. At least 1,500 persons had been attacked since the outbreak of the disease, and 800 of these had died. At Bengazi the disease had broken out in the course of May, and had reached its highest point of intensity towards the 20th of June, when from 20 to 30 persons died per diem. From that period the epidemic raged with undiminished violence; and towards the middle of July there were only eight deaths per diem, out of a population reduced to about 4,000 souls. But while the disease decreased at Bengazi, it spread to the surrounding country, especially on account of the flight of a great many inhabitants of the town, who scattered themselves in the neighbouring districts. Such are the main facts which have transpired. Ample details will shortly be found in an elaborate pamphlet by the Commissioners, which is said to be preparing.

THE MEDICAL ACT.

ARRANGEMENT OF CLAUSES.

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ANNO VICESIMO PRIMO & VICESIMO SECUNDO

VICTORIÆ REGINÆ.

CAP. XC.

AN ACT

TO

REGULATE THE QUALIFICATIONS OF
PRACTITIONERS IN MEDICINE AND
SURGERY.

[2nd August, 1858.]

WHEREAS it is expedient that persons requiring Medical aid should be enabled to distinguish qualified from unqualified Practitioners: Be it therefore enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:—

Short Title.

I. This Act may, for all purposes, be cited as "The Medical Act."

Commencement of Act.

II. This Act shall commence and take effect from the 1st day of October, 1858.

Medical Council.

III. A Council, which shall be styled "The General Council of Medical Education and Registration of the United Kingdom," hereinafter referred to as the General Council, shall be established, and Branch Councils, for England, Scotland, and Ireland, respectively, formed thereout, as hereinafter mentioned.

Members of Council.

IV. The General Council shall consist of one person chosen, from time to time, by each of the following Bodies; (that is to say)—

The Royal College of Physicians,
The Royal College of Surgeons of England,

The Apothecaries' Society of London,
The University of Oxford,
The University of Cambridge,
The University of Durham,
The University of London,
The College of Physicians of Edinburgh,
The College of Surgeons of Edinburgh,
The Faculty of Physicians and Surgeons of Glasgow;
One person chosen, from time to time, by the University of Edinburgh and the two Universities of Aberdeen collectively;

One person chosen, from time to time, by the University of Glasgow and the University of St. Andrew's collectively;

One person chosen, from time to time, by each of the following bodies:—

The King and Queen's College of Physicians in Ireland,

The Royal College of Surgeons in Ireland,

The Apothecaries' Hall of Ireland,

The University of Dublin,

The Queen's University in Ireland;

And six persons to be nominated by Her Majesty, with the advice of her Privy Council, four of whom shall be appointed for England, one for Scotland, and one for Ireland; and of a President, to be elected by the General Council.

Provision in case the Universities of Glasgow, Aberdeen, and St. Andrew's fail to appoint a person to represent them.

V. If the said Universities of Edinburgh and Aberdeen, of Glasgow and Saint Andrew's, respectively, shall not be able to agree upon some one person to represent them in the Council, it shall be lawful for each one of the said Universities to select one person; and thereupon it shall be lawful for her Majesty, with the advice of her Privy Council, to appoint one of the persons so selected to be a member of the said Council, for the said Universities.

Branches of the Council for England, Scotland, and Ireland.

VI. The members chosen by the Medical Corporations and Universities of England, Scotland, and Ireland, respectively, and the members nominated by her Majesty, with the advice of her Privy Council, for such parts respectively of the United Kingdom, shall be the Branch Councils for such parts respectively of the United Kingdom, to which Branch Councils shall be delegated such of the powers and duties vested in the Council as the Council may see fit, other than the power to make representations to her Majesty in Council, as hereinafter mentioned. The President shall be a member of all the Branch Councils.

Qualification.

VII. Members of the General Council representing the Medical Corporations, must be qualified to be registered under this Act.

Resignation or Death of Member of General Council.

VIII. The members of the General Council shall be chosen and nominated for a term not exceeding five years, and shall be capable of re-appointment; and any member may at any time resign his appointment, by letter addressed to the President of the said Council; and upon the death or resignation of any member of the said Council, some other person shall be constituted a member of the said Council in his place, in manner hereinbefore provided; but it shall be lawful for the Council, during such vacancy, to exercise the powers hereinafter mentioned.

Time and Place of Meeting of the General Council.

IX. The General Council shall hold their first meet-

ing within three months from the commencement of this Act, in such place and at such time as one of Her Majesty's Principal Secretaries of State shall appoint, and shall make such rules and regulations as to the times and places of the meetings of the General Council, and the mode of summoning the same, as to them shall seem expedient; which rules and regulations shall remain in force until altered at any subsequent meeting; and in the absence of any rule or regulation as to the summoning a meeting of the General Council, it shall be lawful for the President to summon a meeting, at such time and place as to him shall seem expedient, by letter addressed to each member; and at every meeting, in the absence of the President, some other member, to be chosen from the members present, shall act as President; and all acts of the General Council shall be decided by the votes of the majority of the members present at any meeting, the whole number present not being less than eight; and at all such meetings the President for the time being shall, in addition to his vote as a member of the Council, have a casting vote, in case of an equality of votes; and the General Council shall have power to appoint an executive Committee out of their own body, of which the quorum shall not be less than three, and to delegate to such Committee such of the powers and duties vested in the Council as the Council may see fit, other than the power of making representations to Her Majesty in Council, as hereinafter mentioned.

Appointment of Registrars and other Officers.

X. The General Council shall appoint a Registrar, who shall act as Secretary of the General Council, and who may also act as Treasurer, unless the Council shall appoint another person or other persons as Treasurer or Treasurers; and the person or persons so appointed shall likewise act as Registrar for England, and as Secretary and Treasurer or Treasurers, as the case may be, for the Branch Council for England. The General Council and Branch Council for England shall also appoint so many clerks and servants as shall be necessary for the purposes of this Act; and every person so appointed by any Council shall be removable at the pleasure of that Council, and shall be paid such salary as the Council by which he was appointed shall think fit.

Appointment of Registrars and other Officers by Branch Councils.

XI. The Branch Councils for Scotland and Ireland shall each respectively in like manner appoint a Registrar, and other officers and clerks, who shall be paid such salaries as such Branch Councils respectively shall think fit, and be removable at the pleasure of the Council by which they were appointed; and the person appointed Registrar shall also act as Secretary to the Branch Council, and may also act as Treasurer, unless the Council shall appoint some other person or persons as Treasurer or Treasurers.

Fees for Attendance at Councils.

XII. There shall be paid to the members of the Councils such fees for attendance and such reasonable travelling expenses as shall from time to time be allowed by the General Council, and approved by the Commissioners of Her Majesty's Treasury.

Expenses of the Councils.

XIII. All moneys paid to the respective Councils shall be paid to the Treasurers of such Councils respectively, and shall be applied to defray the expenses of carrying this Act into execution, in manner following; that is to say, separate accounts shall be kept of the expenses of the General Council, and of those of the Branch Councils; and the expenses of the General Council, including those of keeping, printing, and pub-

lishing the Register for the United Kingdom, shall be defrayed, under the direction of the General Council, by means of an equal per-centage rate upon all moneys received by the several Branch Councils. Returns shall be made by the Treasurers of the respective Branch Councils, at such times as the General Council shall direct, of all moneys received by them; and the necessary per-centage having been computed by the General Council, the respective contributions shall be paid by the Treasurers of such Branch Councils, to the Treasurer or Treasurers of the General Council; and the expenses of the Branch Councils shall be defrayed, under the direction of those Councils respectively, out of the residue of the moneys so received as aforesaid.

Duty of Registrar to keep the Register correct.

XIV. It shall be the duty of the Registrars to keep their respective Registers correct, in accordance with the provisions of this Act, and the orders and regulations of the General Council, and to erase the names of all registered persons who shall have died, and shall, from time to time, make the necessary alterations in the addresses or qualifications of the persons registered under this Act; and to enable the respective Registrars duly to fulfil the duties imposed upon them, it shall be lawful for the Registrar to write a letter to any registered person, addressed to him according to his address on the Register, to inquire whether he has ceased to practise, or has changed his residence; and if no answer shall be returned to such letter, within the period of six months from the sending of the letter, it shall be lawful to erase the name of such person from the Register; provided always, that the same may be restored by direction of the General Council, should they think fit to make an order to that effect.

Registration of Persons now qualified and of Persons hereafter becoming qualified.

XV. Every person now possessed, and (subject to the provisions hereinafter contained) every person hereafter becoming possessed, of any one or more of the qualifications described in the Schedule (A) to this Act, shall, on payment of a fee, not exceeding £2 in respect of qualifications obtained before the 1st of January, 1859, and not exceeding £5 in respect of qualifications obtained on or after that day, be entitled to be registered, on producing, to the Registrar of the Branch Council for England, Scotland, or Ireland, the document conferring or evidencing the qualification or each of the qualifications in respect whereof he seeks to be registered, or upon transmitting by post to such Registrar information of his name and address, and evidence of the qualification or qualifications in respect whereof he seeks to be so registered, and of the time or times at which the same was or were, respectively obtained; provided always, that it shall be lawful for the several Colleges and other Bodies mentioned in the said Schedule (A), to transmit, from time to time, to the said Registrar lists, certified under their respective seals, of the several persons who, in respect of qualifications granted by such Colleges and Bodies respectively, are, for the time being, entitled to be registered under this Act, stating the respective qualifications and places of residence of such persons; and it shall be lawful for the Registrar thereupon, and upon payment of such fee as aforesaid in respect of each person to be registered, to enter in the Register the persons mentioned in such lists, with their qualifications and places of residence, as therein dated, without other application in relation thereto.

Council to make orders for regulating Registers to be kept.

XVI. The General Council shall, with all convenient speed after the passing of this Act, and from time to

time as occasion may require, make orders for regulating the Registers to be kept under this Act, as nearly as conveniently may be in accordance with the form set forth in Schedule (D.) to this Act, or to the like effect.

Persons practising in England before 1st August, 1815, entitled to be registered.

XVII. Any person who was actually practising medicine in England before the 1st day of August, 1815, shall, on payment of a fee to be fixed by the General Council, be entitled to be registered on producing to the Registrar of the Branch Council for England, Scotland, or Ireland, a declaration according to the form in the Schedule (B.) to this Act signed by him, or upon transmitting to such Registrar information of his name and address, and enclosing such declaration as aforesaid.

Council may require Information as to Course of Study, &c., required for obtaining Qualifications.

XVIII. The several Colleges and Bodies in the United Kingdom mentioned in Schedule (A.) to this Act shall from time to time, when required by the General Council, furnish such Council with such information as they may require as to the courses of study and examinations to be gone through in order to obtain the respective qualifications mentioned in Schedule (A.) to this Act, and the ages at which such courses of study and examination are required to be gone through, and such qualifications are conferred, and generally as to the requisites for obtaining such qualifications; and any member or members of the General Council, or any person or persons deputed for this purpose by such council, or by any Branch Council, may attend and be present at any such examinations.

Colleges may unite in conducting Examinations.

XIX. Any two or more of the Colleges and Bodies in the United Kingdom mentioned in Schedule (A.) to this Act may, with the sanction and under the directions of the General Council, unite or co-operate in conducting the examinations required for qualifications to be registered under this Act.

Defects in the Course of Study or Examinations may be represented by the General Council of Privy Council.

XX. In case it appear to the General Council that the course of study and examinations to be gone through in order to obtain any such qualification from any such College or Board, are not such as to secure the possession by persons obtaining such qualification of the requisite knowledge and skill for the efficient practice of their profession, it shall be lawful for such General Council to represent the same to her Majesty's most Honourable Privy Council.

Privy Council may suspend the Right of Registration in respect of Qualifications granted by College, &c., in default, but may be revoked.

XXI. It shall be lawful for the Privy Council, upon any such representation as aforesaid, if it see fit, to order that any qualification granted by such college or body, after such time as may be mentioned in the order, shall not confer any right to be registered under this Act: Provided always, that it shall be lawful for Her Majesty, with the advice of her Privy Council, when it is made to appear to her, upon further representation from the General Council or otherwise, that such College or Body has made effectual provision, to the satisfaction of such General Council, for the improvement of such course of study or examinations, or the mode of conducting such examinations, to revoke any such order.

Persons not to be Registered in respect of Qualifications granted by the College or Body before Revocation.

XXII. After the time mentioned in this behalf in any such order in Council, no person shall be entitled to be registered under this Act in respect of any such qualification as in such order mentioned, granted by the College or Body to which such order relates, after the time therein mentioned, and the revocation of any such order shall not entitle any person to be registered in respect of any qualification granted before such revocation.

Privy Council may prohibit attempts to impose Restrictions as to any Theory of Medicine or Surgery, by Bodies entitled to grant Certificates.

XXIII. In case it shall appear to the General Council that an attempt has been made by any Body, entitled under this Act to grant qualifications, to impose upon any candidate offering himself for examination an obligation to adopt or refrain from adopting the practice of any particular theory of Medicine or Surgery as a test or condition of admitting him to examination, or of granting a certificate, it shall be lawful for the said Council to represent the same to Her Majesty's most Honourable Privy Council, and the said Privy Council may thereupon issue an injunction to such Body so acting, directing them to desist from such practice; and in the event of their not complying therewith, then to order that such Body shall cease to have the power of conferring any right to be registered under this Act, so long as they shall continue such practice.

As to the Making and Authentication of Orders, &c.

XXIV. All powers vested in the Privy Council by this Act may be exercised by any three or more of the Lords and others of the Privy Council, the Vice-President of the Committee of the said Privy Council on Education being one of them; and all orders and acts of the Privy Council under this Act shall be sufficiently made and signified by a written or printed document, signed by one of the clerks of the Privy Council, or such officer as may be appointed by the Privy Council in this behalf; and all orders and acts made or signified by any written or printed document purporting to be so signed shall be deemed to have been duly made, issued, and done by the Privy Council; and every such document shall be received in evidence in all Courts, and before all Justices and others, without proof of the authority or signature of such clerk or other officer, or other proof whatsoever, until it be shown that such document was not duly signed by the authority of the Privy Council.

As to Registration by Branch Registrars.

XXV. Where any person entitled to be registered under this Act applies to the Registrar of any of the said Branch Councils for that purpose, such Registrar shall forthwith enter in a Local Register in the form set forth in Schedule (D.) to this Act, or to the like effect, to be kept by him for that purpose, the name and place of residence, and the qualification or several qualifications in respect of which the person is so entitled, and the date of the registration, and shall, in the case of the Registrar of the Branch Council for Scotland or Ireland, with all convenient speed, send to the Registrar of the General Council a copy, certified under the hand of the Registrar, of the entry so made; and the Registrar of the General Council shall forthwith cause the same to be entered in the General Register; and such Registrar shall also forthwith cause all entries made in the Local Register for England to be entered in the General Register; and the entry on the General Register shall bear date from the Local Register.

Evidence of Qualification to be given before Registration.

XXVI. No qualification shall be entered on the Register, either on the first registration, or by way of addition to a registered name, unless the Registrar be satisfied by the proper evidence that the person claiming is entitled to it; and any appeal from the decision of the Registrar may be decided by the General Council, or by the Council for England, Scotland, or Ireland (as the case may be); and any entry which shall be proved to the satisfaction of such General Council or Branch Council to have been fraudulently or incorrectly made, may be erased from the Register, by order in writing of such General Council or Branch Council.

Register to be published.

XXVII. The Registrar of the General Council shall, in every year, cause to be printed, published, and sold, under the direction of such Council, a correct Register of the names, in alphabetical order according to the surnames, with the respective residences, in the form set forth in Schedule (D) to this Act, or to the like effect: and medical titles, diplomas, and qualifications conferred by any Corporation or University, or by Doctorate of the Archbishop of Canterbury, with the dates thereof, of all persons appearing on the General Register as existing on the first day of January in every year; and such Register shall be called "The Medical Register;" and a copy of the Medical Register for the time being, purporting to be so printed and published as aforesaid, shall be evidence in all Courts, and before all Justices of the Peace and others, that the persons therein specified are registered according to the provisions of this Act; and the absence of the name of any person from such copy shall be evidence, until the contrary be made to appear, that such person is not registered according to the provisions of this Act; Provided always, that in the case of any person whose name does not appear in such copy, a certified copy, under the hand of the Registrar of the General Council, or of any Branch Council, of the entry of the name of such person on the General or Local Register, shall be evidence that such person is registered under the provisions of this Act.

Names of Members struck off from List of College, &c., to be signified to General Council.

XXVIII. If any of the said Colleges or the said Bodies at any time exercise any power they possess by law, of striking off from the list of such College or Body the name of any one of their members, such College or Body shall signify to the General Council the name of the member so struck off; and the General Council may, if they see fit, direct the Registrar to erase forthwith from the Register the qualification derived from such College or Body, in respect of which such member was registered, and the Registrar shall note the same therein; provided always, that the name of no person shall be erased from the Register on the ground of his having adopted any theory of Medicine or Surgery.

Medical Practitioners convicted of Felony may be struck off the Register.

XXIX. If any registered Medical Practitioner shall be convicted in England or Ireland of any felony or misdemeanor, or in Scotland of any crime or offence, or shall, after due inquiry, be judged by the General Council to have been guilty of infamous conduct in any professional respect, the General Council may, if they see fit, direct the Registrar to erase the name of such Medical Practitioner from the Register.

Registered Persons may have subsequent Qualifications inserted in the Register.

XXX. Every person registered under this Act, who

may have obtained any higher degree, or any qualification other than the qualification in respect of which he may have been registered, shall be entitled to have such higher degree or additional qualification inserted in the Register, in substitution for, or in addition to, the qualification previously registered, on payment of such fee as the Council may appoint.

Privileges of Registered Persons.

XXXI. Every person registered under this Act shall be entitled, according to his qualification or qualifications, to practise Medicine or Surgery, or Medicine and Surgery, as the case may be, in any part of her Majesty's dominions, and to demand and recover in any court of law, with full costs of suit, reasonable charges for professional aid, advice, and visits, and the cost of any medicines, or other medical or surgical appliances, rendered or supplied by him to his patients; provided always, that it shall be lawful for any College of Physicians to pass a Bye-law to the effect that no one of their Fellows or Members shall be entitled to sue in manner aforesaid in any court of law; and thereupon such Bye-law may be pleaded in bar to any action for the purposes aforesaid commenced by any Fellow or Member of such College.

None but Registered Persons to recover Charges.

XXXII. After the 1st day of January, 1859, no person shall be entitled to recover any charge in any court of law, for any medical or surgical advice, attendance, or for the performance of any operation, or for any medicine which he shall have both prescribed and supplied, unless he shall prove upon the trial that he is registered under this Act.

Poor-Law Medical Officers not disqualified, if Registered within Six Months of Passing of Act.

XXXIII. Provided also, that no person who, on the 1st of October, 1858, shall be acting as Medical Officer under an order of the Poor-Law Commissioners or Poor-Law Board, shall be disqualified to hold such office by reason of his not being registered as herein required, unless he shall have failed to be registered within six months from the passing of this Act.

Meaning of terms Legally-qualified Medical Practitioner, &c.

XXXIV. After the 1st day of January, 1859, the word "Legally-qualified Medical Practitioner," or "duly qualified Medical Practitioner," or any words importing a person recognised by law as a Medical Practitioner or member of the Medical Profession, when used in any Act of Parliament, shall be construed to mean a person registered under this Act.

Registered Persons exempted from serving on Juries, &c.

XXXV. Every person who shall be registered under the provisions of this Act shall be exempt, if he shall so desire, from serving on all Juries and Inquests whatsoever, and from serving all corporate, parochial, ward, hundred, and township offices, and from serving in the militia; and the name of such person shall not be returned in any list of persons liable to serve in the militia, or in any such office as aforesaid.

Unregistered Persons not to hold certain Appointments.

XXXVI. After the 1st day of January, 1859, no person shall hold any appointment as a Physician, Surgeon, or other Medical Officer, either in the military or naval service, or in emigrant or other vessels, or in any Hospital, Infirmary, Dispensary, or Lying-in Hospital, not supported wholly by voluntary contributions, or in any Lunatic Asylum, Gaol, Penitentiary, House of Correction, House of Industry, Parochial or Union Work-

house or Poorhouse, Parish Union, or other public establishment, body, or institution, or to any Friendly or other Society, for affording mutual relief in sickness, infirmity, or old age, or as a Medical Officer of Health, unless he be registered under this Act; provided always, that nothing in this Act contained shall extend to repeal or alter any of the provisions of the Passengers Act, 1855.

No Certificate to be valid unless Person signing be Registered.

XXXVII. After the 1st day of January, 1859, no certificate required by any Act now in force, or that may hereafter be passed, from any Physician, Surgeon, Licentiate in Medicine and Surgery, or other Medical Practitioner, shall be valid, unless the person signing the same be registered under this Act.

Penalty on Wilful Falsification of Register.

XXXVIII. Any Registrar who shall wilfully make or cause to be made any falsification in any matters relating to the Register, shall be deemed guilty of a misdemeanor in England or Ireland, and in Scotland of a crime or offence punishable by fine or imprisonment, and shall, on conviction thereof, be imprisoned for any term not exceeding twelve months.

Penalty for obtaining Registration by false Representations.

XXXIX. If any person shall wilfully procure or attempt to procure himself to be registered under this Act, by making or producing, or causing to be made or produced, any false or fraudulent representation or declaration, either verbally or in writing, every such person so offending, and every person aiding and assisting him therein, shall be deemed guilty of a misdemeanor in England and Ireland, and in Scotland of a crime or offence punishable by fine or imprisonment, and shall, on conviction thereof, be sentenced to be imprisoned for any term not exceeding twelve months.

Penalty for falsely pretending to be a Registered Person.

XL. Any person who shall wilfully and falsely pretend to be, or take or use the name or title of a Physician, Doctor of Medicine, Licentiate in Medicine and Surgery, Bachelor of Medicine, Surgeon, General Practitioner, or Apothecary, or any name, title, addition, or description implying that he is registered under this Act, or that he is recognised by law as a Physician, or Surgeon, or Licentiate in Medicine and Surgery, or a Practitioner in Medicine, or an Apothecary, shall, upon a summary conviction, for any such offence, pay a sum not exceeding £20.

Recovery of Penalties.

XLI. Any penalty to which under this Act any person is liable on summary conviction of any offence, may be recovered as follows; (that is to say,) in England, in manner directed by the Act of the session holden in the eleventh and twelfth years of her Majesty, chapter forty-three, and in Ireland in manner directed by "The Petty Sessions (Ireland) Act, 1851," or any other Act for the time being in force in England and Ireland respectively for the like purposes; and any such penalty may in Scotland be recovered by the Procurator Fiscal of the County, or by any other person before the Sheriff or two Justices, who may proceed in a summary way, and grant warrant for bringing the party complained against before him or them, or issue an order requiring such party to appear on a day and at a time and place to be named in such order, and every such order shall be served on the party by delivering to him in person, or by leaving at his usual place of abode, a copy of such order and of the complaint whereupon the same has proceeded, and upon the appearance or default to

appear of the party, it shall be lawful for the Sheriff or Justices to proceed to the hearing of the complaint, and, upon proof on oath or confession of the offence, the Sheriff or Justices shall, without any written pleadings or record of evidence, commit the offender, and decern him to pay the penalty named, as well as such expenses as the Sheriff or Justices shall think fit, and, failing payment, shall grant warrant for recovery thereof by poinding and imprisonment, such imprisonment to be for such period as the discretion of the Sheriff or Justices may direct, not exceeding three calendar months, and to cease on payment of the penalty and expenses.

Application of Penalties.

XLII. Any sum or sums of money arising from conviction and recovery of penalties as aforesaid shall be paid to the Treasurer of the General Council.

Application of Moneys received by Treasurer.

XLIII. All moneys received by any Treasurer arising from fees to be paid on registration, from the sale of registers, from penalties, or otherwise, shall be applied for expenses of registration and of the execution of this Act.

Accounts to be published.

XLIV. The Treasurers of the General and Branch Councils shall enter in books to be kept for that purpose a true account of all sums of money by them received and paid, and such Accounts shall be submitted by them to the respective General Council and Branch Councils at such times as the Councils shall require; and the said Accounts shall be published annually, and such Accounts shall be laid before both Houses in the month of March in every year, if Parliament be sitting, or, if Parliament be not sitting, then within one month after the next meeting of Parliament.

Notice of Death of Medical Practitioners to be given by Registrars.

XLV. Every Registrar of Deaths in the United Kingdom, on receiving notice of the death of any Medical practitioner, shall forthwith transmit by post to the Registrar of the General Council and to the Registrar of the Branch Council, a certificate under his own hand of such death, with the particulars of time and place of death, and may charge the cost of such certificate and transmission as an expense of his office, and on the receipt of such certificate the Medical Registrar shall erase the name of such deceased Medical practitioner from the Register.

Provision for Persons practising in the Colonies and elsewhere, and for Students.

XLVI. It shall be lawful for the General Council by special orders to dispense with such provisions of this Act, or with such part of any regulations made by its authority as to them shall seem fit, in favour of persons now practising Medicine or Surgery in any part of her Majesty's dominions other than Great Britain and Ireland, by virtue of any of the qualifications described in schedule (A); and also in favour of persons practising Medicine or Surgery within the United Kingdom on foreign or colonial diplomas or degrees before the passing of this Act; and also in favour of any persons who have held appointments as Surgeons or Assistant-Surgeons in the Army, Navy or Militia, or in the service of the East India Company, or are acting as Surgeons in the public service, or in the service of any charitable institutions, and also, so far as to the Council shall seem expedient, in favour of Medical Students who

shall have commenced their professional studies before the passing of this Act.

New Charter may be granted to the College of Physicians of London.

XLVII. It shall be lawful for her Majesty to grant to the Corporation of the Royal College of Physicians of London a new charter, and thereby to give to such Corporation the name of "The Royal College of Physicians of England," and to make such alterations in the constitution of the same Corporation as to her Majesty may seem expedient; and it shall be lawful for the said Corporation to accept such charter under their common seal, and such acceptance shall operate as a surrender of all charters heretofore granted to the said Corporation, except the charter granted by King Henry the Eighth, and shall also operate as a surrender of such charter and of any rights, powers, or privileges, conferred by or enjoyed under an Act of the Session, holden in the fourteenth and fifteenth years of King Henry the Eighth, chapter five, confirming the same, as far as such charter and Act respectively may be inconsistent with such new charter: provided, nevertheless, that within twelve months after the granting of such charter to the College of Physicians of London, any Fellow, Member, or Licentiate of the Royal College of Physicians of Edinburgh, or of the Queen's College of Physicians of Ireland, who may be in practice as a Physician in any part of the United Kingdom called England, and who may be desirous of becoming a Member of such College of Physicians of England, shall be at liberty to do so, and be entitled to receive the diploma of the said College, and to be admitted to all the rights and privileges thereunto appertaining, on the payment of a registration fee of £2 to the said College.

Her Majesty may grant Power to the College of Surgeons to institute Examinations, &c., for Dentists.

XLVIII. It shall, notwithstanding anything herein contained, be lawful for her Majesty, by charter, to grant to the Royal College of Surgeons of England, power to institute and hold Examinations for the purpose of testing the fitness of persons to practise as Dentists who may be desirous of being so examined, and to grant certificates of such fitness.

New Charter may be granted to College of Physicians of Edinburgh.

XLIX. It shall be lawful for her Majesty to grant to the Corporation of the Royal College of Physicians of Edinburgh a new charter, and thereby to give to the said College of Physicians the name of "The Royal College of Physicians of Scotland," and it shall be lawful for the said Royal College of Physicians, under their common seal, to accept such new charter, and such acceptance shall act as a surrender of all charters heretofore granted to the said Corporation.

The Faculty of Glasgow may be amalgamated.

L. If at any future period the Royal College of Surgeons of Edinburgh and Faculty of Physicians and Surgeons of Glasgow agree to amalgamate, so as to form one united Corporation, under the name of "The Royal College of Surgeons of Scotland," it shall be lawful for her Majesty to grant and for such College and Faculty, under their respective common seals, to accept, such new charter or charters as may be necessary for effecting such union, and such acceptance shall operate as a surrender of all charters heretofore granted to such College and Faculty; and in the event of such union it shall be competent for the said College and

Faculty to make such arrangements as to the time and place of their examinations as they may agree upon, these arrangements being in conformity with the provisions of this Act, and subject to the approval of the General Council.

New Charter may be granted to the King and Queen's College of Physicians in Ireland.

LI. It shall be lawful for her Majesty to grant to the Corporation of the King and Queen's College of Physicians in Ireland a new charter, and thereby to give to such Corporation the name of "The Royal College of Physicians of Ireland," and to make such alterations in the constitution of the said Corporation as to her Majesty may seem expedient; and it shall be lawful for the said Corporation to accept such charter under their common seal, and such acceptance shall operate as a surrender of the charter granted by King William and Queen Mary, as far as it may be inconsistent with such new charter.

Charters not to contain new Restrictions in the Practice of Medicine or Surgery.

II. Provided always, that nothing herein contained shall extend to authorize her Majesty to create any new restriction in the practice of Medicine or Surgery, or to grant to any of the said Corporations any powers or privileges contrary to the common law of the land or to the provisions of this Act, and that no such new charter shall in anywise prejudice, affect, or annul any of the existing statutes or bylaws of the Corporations to which the same shall be granted, further than shall be necessary for giving full effect to the alterations which shall be intended to be effected by such new charters and by this Act in the constitution of such Corporation.

Provisions of 17 & 18 Vict. c. 114, as to University of London to continue in force.

LIII. The enactments and provisions of the University of London Medical Graduates Act, 1854, shall be deemed and construed to have applied, and shall apply, to the University of London for the time being, notwithstanding the surrender or determination of the therein-recited Charter, and the granting or acceptance of the now existing Charter of the University of London, or the future determination of the present or any future Charter of the said University; and that every Bachelor of Medicine and Doctor of Medicine of the University of London for the time being shall be deemed to have been and to be entitled, and shall be entitled to the privileges conferred by the said Act, in the same manner and to the same extent as if the Charter recited in the said Act remained in force, subject, nevertheless, to the provisions of this Act.

British Pharmacopœia to be published.

LIV. The General Council shall cause to be published under their direction a book containing a list of Medicines and compounds, and the manner of preparing them, together with the true weights and measures by which they are to be prepared and mixed, and containing such other matter and things relating thereto as the General Council shall think fit, to be called "British Pharmacopœia;" and the General Council shall cause to be altered, amended, and republished such Pharmacopœia as often as they shall deem it necessary.

Chemists, &c., not to be affected.

L.V. Nothing in this Act contained shall extend or be construed to extend to prejudice or in any way to

affect the lawful occupation, trade, or business of Chemists and Druggists and Dentists, or the rights, privileges, or employment of duly licensed apothecaries in Ireland, so far as the same extend to selling, compounding, or dispensing medicines.

SCHEDULE (A.)

1. Fellow, Licentiate or Extra Licentiate of the Royal College of Physicians of London.
2. Fellow or Licentiate of the Royal College of Physicians of Edinburgh.
3. Fellow or Licentiate of the King's and Queen's College of Physicians of Ireland.
4. Fellow or Member or Licentiate in Midwifery of the Royal College of Surgeons of England.
5. Fellow or Licentiate of the Royal College of Surgeons of Edinburgh.
6. Fellow or Licentiate of the Faculty of Physicians and Surgeons of Glasgow.
7. Fellow or Licentiate of the Royal College of Surgeons of Ireland.
8. Licentiate of the Society of Apothecaries, London.
9. Licentiate of the Apothecaries' Hall, Dublin.
10. Doctor or Bachelor or Licentiate of Medicine, or Master in Surgery of any University of the United Kingdom, or Doctor of Medicine by Doctorate granted prior to passing of this Act by the Archbishop of Canterbury.
11. Doctor of Medicine of any foreign or colonial University or College, practising as a Physician in the United Kingdom before the 1st day of October, 1858, who shall produce certificates to the satisfaction of the Council of his having taken his degree of Doctor of Medicine after regular examination, or who shall satisfy the Council, under Section XLV. of this Act, that there is sufficient reason for admitting him to be registered.

SCHEDULE (B.)

Declaration required of a person who claims to be registered as a Medical Practitioner, upon the ground that he was in practice as a Medical Practitioner in England or Wales before the 1st day of August, 1815.

To the Registrar of the Medical Council.

I, _____, residing at _____ in the County of _____ hereby declare that I was practising as a Medical Practitioner at _____ in the County of _____ before the 1st day of August, 1815.

(Signed) _____ [Name.]
Dated this _____ day of _____ 185 ____.

SCHEDULE (D.)

Name.	Residence.	Qualification.	Title.
A.B. ..	London ..	Fellow of the Royal College of Physicians of	
C.D. ..	Edinburgh ..	Fellow & Member of the Royal College of Surgeons of	
E.F. ..	Dublin ..	Graduate in Medicine of University of	
G.H. ..	Bristol ..	Licentiate of the Society of Apothecaries.	
L.K. ..	London ..	Member of the College of Surgeons, or Licentiate of Society of Apothecaries.	

TESTIMONIAL TO DR. ROBINSON, OF WARRENPOINT.—A meeting of the friends of Dr. Robinson, was lately held in Ballybay, for the purpose of presenting that gentleman with two most complimentary Addresses—together with the Plate subscribed for on the occasion of his resignation of the office of Medical Attendant of the local Dispensary. The meeting, which was held in the Market-house, was largely and most respectably attended. The chair was taken by R. C. Leslie French, Esq., D.L., who opened the business by some observations complimentary to Dr. Robinson. The Rev. John Dunbar, Rector of the Parish, read one Address, and the Rev. J. H. Morell, Presbyterian Minister, read the other—the former on the part of the Committee, and the latter for the Subscribers to the Plate. Dr. Robinson then read his reply. A. R. Young, Esq., Surgeon of Monaghan Infirmary, followed in an able and effective speech, in which he did justice to the high character and eminent professional attainments of Dr. Robinson. The latter having responded in feeling and grateful terms, the meeting separated. The plate was most beautiful, and amounted in value to £80, contributed by seventy-six subscribers. It consisted of a splendid salver, tea-urn, teapot, coffeepot, sugar bowl, and cream-ewer. The salver bore the following inscription:—"Presented, with an accompanying Tea and Coffee Service, to Joseph Robinson, Esq., M.D., L.R.C.S.I., on his removal from Ballybay, by a number of his friends in that town and neighbourhood, as a testimonial of their esteem for his character, and their appreciation of the faithfulness and efficiency with which he discharged his professional duties both public and private."

The inscription on the other articles is shorter.

The Testimonial, altogether—proceeding, as it has done, from the *élite* of a large district in Monaghan County—is one of which any man might be proud. It affords undoubted evidence of the estimation in which Dr. Robinson was held by the people amongst whom he has for years successfully practised; and forms, therefore, the best possible introduction to the people amongst whom he is now settled.

SUBJECTS FOR ESSAYS ANNOUNCED BY FOREIGN SOCIETIES.—The Medical Society of Bordeaux announces the following subjects for competition:—1st, for the year 1858, "On Mushrooms, considered as Food and as Poisons;" 2nd, for the year 1859, "On Iodine Injections in the Normal Serous Cavities." Each prize is of the value of 300 francs. The Medical Society of the Department of Loire Inferieure, at Nantes, has again announced the following questions, which were submitted for competitive treatment by essays in 1857, but did not elicit any satisfactory production:—1st, "On Illumination by Gas, from the point of view of Medical Hygiene;" 2nd, "Studies in Medical Statistics on one or more localities of the Department, and especially on those where grave Epidemics of Intermittent Fever or of Dysentery are observed." The Medico-Psychological Society of Paris submits for competition the following question—Perrus Prize (500 francs):—"The Comparative Discussion of Cretinism, Imbecility, and Idiocy, from the double point of view of their Etiology and Pathological Anatomy."

ILLNESS AND RECOVERY OF PROFESSOR GRÆFE.—We are happy to hear of the recovery of the distinguished oculist, Professor Græfe, of Berlin, from a contagious ophthalmia, which he had contracted in practising an ophthalmic operation.

SARKINE.—M. Strecker announces that he has obtained from the syrupy liquor of extract of muscle, this new basic substance. He has extracted it, as a white crystalline powder, which resists a temperature of 150° cent., and decomposes at a higher temperature. It is soluble in 800 parts of water, and in 900 parts of alcohol. Its formula is C¹⁰, H⁴, N⁴, O⁸. In many particulars it resembles hypoxanthine, guanine, and xanthine.

PEPSINE WINE.—We find in *L'Union Médicale* that the following pepsine wine is extremely agreeable and efficacious:—Take of starchy pepsine, prepared according to Messrs. Corvisart and Boudalt's formula, one drachm and a half; distilled water, six drachms; white wine (of Lunel), fifteen drachms; white sugar, one ounce; spirit of wine (33°), three drachms. Mix until the sugar is quite dissolved, and filter. One tablespoonful of this wine contains about fifteen grains of pepsine, and may be given after every meal.

AIR IN THE BONES.—Dr. Crisp has lately published some interesting papers upon the air-sacs in birds, and the presence of air in the hollow bones. His conclusions are:—1. That in the majority of British birds no air-cavities connected with the lungs are present in the bones. 2. That the presence of air in the bones is not necessary for swift and long-continued flight, as instanced especially by the gulls, snipes, swallows, and martins. 3. That in no bird examined by him was air found in the bones of the extremities beyond the femora and humeri.

NEW VACCINATION ACT.—An Act of Parliament was passed, on the day of prorogation, to make further provision for the practice of vaccination in Ireland. Officers districts are to be divided, and the medical officers are to be paid £1 for every twenty successful cases in each year.

MUNIFICENT BEQUEST.—The late Mrs. Hutchinson, of Hyde Park, has left £45,000 to be divided between St. George's Hospital, Queen Charlotte's Lying-in Hospital, and the "Houseless Poor."

APPOINTMENTS.

At a meeting of the Governors of the County Caran Infirmary, held on the 24th instant, Andrew Mese, Esq., M.B., F.R.C.S.I., was elected Surgeon to the Infirmary, in the room of the late Dr. Roe.

Dr. J. Drew, of Tripple House, County of Louth, has been appointed by the Lords of the Admiralty Medical Attendant on the sick and wounded seamen and marines of the coast-guard stations between the river Boyne and Dundalk.

TO ADVERTISERS.

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CLINICAL OBSERVATIONS ON INJURIES AND DISEASES OF THE URINARY ORGANS,

ILLUSTRATED BY CASES.

By CHRISTOPHER FLEMING, M.D., M.R.I.A.,
Surgeon to the Richmond Hospital.

Foreign bodies originating in the urethra, and obstructing the flow of urine, are comparatively rarely met with; they are usually associated with disease in it, and consist of calculous material, more or less incorporated with morbid mucous secretions generated in their immediate vicinity. The following cases illustrate this class:—

CASE 4.

Retention of Urine from Double Stricture.—Formation of Pipe-shaped Concretion in Urethra.

A pensioner, aged about 40 years, who had served his full time in the East India Company's service, was under treatment for a stricture situated about two and a-half or three inches from the orifice of the urethra, and a second near the bulb. His symptoms were of a most aggravated character: there was hurried and frequent micturition; there were recurring attacks of retention of urine, partial and complete; there was incontinence of urine almost constant, and there were attendant the usual train of constitutional symptoms distinctly intermittent in their character. He laboured under those symptoms, more or less intense, for three or four years. He attributed his strictures to repeated attacks of gonorrhoea in which injections had been freely used, and to perpetual dissipation. Since his discharge from the army he was usually his own surgeon, and his ordinary treatment was the introduction of a gum-elastic catheter armed with a stilette. He was now attacked with most severe retention of urine. I found him with a fresh accession of sharp urinary fever. He was bathed in general perspiration; his pulse was rapid, and the other usual symptoms were present. He had failed to relieve himself by

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his ordinary medicines, by baths, or by catheter. His bladder was full and distended above the pubes; his paroxysms of pain were severe and frequent, and only a drop or so of urine escaped with every laboured effort he made to pass it. There was priapism. The urethra, from the seat of the anterior stricture to the prostate, felt as hard as a board; there was no local evidence of any abscess, or of any disposition to it. Some of the urine which had escaped was collected in a glass; its odour was heavy, its colour turbid; it had alkaline reaction, and was full of tenacious mucus. Its density was about 1·020. I gave him a full opiate, ordered tobacco fomentations over the region of the bladder, and the penis and scrotum to be enveloped in them. Some temporary relief followed; the penis became somewhat flaccid, and the desire for micturition was less frequent. I took advantage of an interval of ease, and introduced rapidly a conical gum-elastic catheter, without a stilette. It passed freely through the first stricture; at the bulb it met with much resistance, yet to my sensation the point entered the stricture in that region, and urine obviously flowed through the instrument. I waited until another effort to pass water supervened. A frightful paroxysm came on; he felt some obstruction give way, and cried out for the withdrawal of the instrument. I anticipated the worst result, when I happened to observe that the urine escaped in a stream from the urethra, and that that stream was again and again interrupted. At the orifice of the urethra a darkish-looking substance now presented itself, which I caught between my fingers, and, drawing it out, found it to be a solid mould of the urethra, as here delineated. The bladder after-



wards fully emptied itself, and all severe symptoms gradually subsided. The man attended as a dispensary patient, but would not remain in hospital; and after a short time I was enabled to introduce No. 6 catheter, which I advised him to leave occasionally in the bladder. The quantity and quality of

the urine improved, his general condition also; and ultimately he again became his own surgeon.

At the time of the removal of this concretion it was consistent and firm, but as it dried it became friable—in fact, so much so, that the slightest violence chipped it, and it has now lost about half an inch of its length. In other respects, the annexed woodcut is most accurate.

CASE 5.

Congenital Phimosis.—Double Stricture of Urethra.—Partial Retention of Urine.—Solid Concretion between Prepuce and Glans.

The following case is instructive, from the peculiar situation which the calculous concretion occupied. The introduction of the case will hence, I should hope, be excused, as, although not formed within the urethra, the concretion materially interrupted the current of urine from that canal, and did partially enter into its orifice.

A shoemaker, aged about 25 years, delicate-looking, and specially negligent of personal cleanliness, applied to me with that form of retention of urine which so closely approximates in its nature incontinence of urine. He stated that he never had sexual intercourse, and he did not appear to be addicted to any other propensity. He complained of the ordinary symptoms of obstructed urethra; his urine occasionally dribbled from him, and his clothes were often wetted with it. These attacks were sometimes paroxysmal, and then, in addition to the above symptoms, agony was experienced when any attempt at erection of the penis took place. For two or three years he had been more or less a sufferer, and yet, through mistaken delicacy, he hesitated to apply for advice, until he took it into his head to marry. On examining him, the shape of the penis struck me as very remarkable: an enormous glans, with an elongated prepuce tightly stretched over it, appeared to be superadded to a miserable and misshapen body of an organ, and foetid urine dribbled from a very contracted preputial orifice. A remarkable stony hardness was communicated to the fingers on feeling this protuberance, and a mortary looking stuff, with abominable urinous odour, was pressed out on squeezing it. The every object of the man was to restrain any erection of the organ, or disposition to it, as, when it occurred during a paroxysm of micturition, absolute retention of urine was the result, which, terminating in incontinence, spontaneously subsided when the tension of the penis passed off. With a blunt probe, passed underneath and around the prepuce, the cause of the hardness was at once discernable. After a few days' dilatation of the orifice of the prepuce with prepared sponge, a director was introduced, and an enormous mass of hard concrete calculous material was removed in detached portions, leaving the glans underneath

deeply pitted, and so shrivelled as almost to escape recognition. The orifice of the urethra lay obscured in one of those pits, and had an offset of the concretion in it. Tepid astringent injections between the glans and prepuce, and careful ablution, soon removed any local annoyance, and renewed retraction of the prepuce corrected the phimosis. On subsequent examination of the urethra I found decided stricture at its orifice, and again about the region of the bulb. Both strictures yielded to ordinary treatment by dilatation, and the man ultimately got perfectly well. Within six months he married, in about six subsequently he called at the dispensary, for advice respecting some passing ailment, when I learned all was right as regarded his former complaints, and on examination perceived that the penis was fairly developed, and the glans natural in appearance. The concretion removed was, in portions, very thick, and somewhat laminated; it weighed above a drachm and a half, and was of considerable bulk. When adjusted, so as to attempt to restore it to its original form, it resembled an irregular mould of a glans penis; as it dried up, it resolved itself into a mass which crumbled, under the slightest pressure, into an amorphous powder, presenting the chemical and microscopical characters of phosphatic calculi mixed with inspissated mucus.

This case is as practically instructive as it is rare. Morbid deposits are commonly found between the glans and prepuce, and some persons are peculiarly prone to them, but they are not often of the nature above noted; I have, however, met with them limitedly so, in adult and in advanced life, where congenital phimosis has existed, where the prepuce was very long, where its opening was very small, and where the orifice of the urethra did not correspond to it. In the turgid state of the organ this relative condition of those openings is completely altered. The glans, in the majority of such cases, is, perhaps from mechanical causes, not developed proportionably with the body of the penis, and the effect of sexual intercourse may hence be as much interfered with as its ultimate object often is. If very great cleanliness be not observed—which is more frequently the rule than the exception—most annoying accumulations will take place under such conditions; and if the cause be not remedied, stricture of the urethra must supervene.* Those special urethral

* As the following case bears upon this subject, I beg to append it:—A servant man, aged about 40 years and in good bodily health, applies occasionally at hospital, to be relieved from ordinary symptoms of stricture. Its rational and sensible signs are decided, and the site of the stricture is in the region of the bulb. No appreciable constitutional symptoms have manifested themselves. His stricture bears the bougie or catheter well, but it is very recurring in its nature. If neglected beyond a month, the rational signs become very troublesome, and the introduction of even a small instrument requires nice manipulation. This man gives the following account of his case:—In early life he got an at-

concretions just noted are, however, the more rare forms which occur in practice; cases such as the following are by far more frequent; and this consideration is of vast moment, and I may here remark, that there is so great a similarity in the commemorative and rational symptoms of urinary diseases, the most opposite in their nature and seat, repetitions in reports of cases are often excusable, and often unavoidable, from the fact that minuteness of detail is essential to their accurate differential diagnosis.

CASE 6.

Stricture of Urethra, complicated with Urinary Abscess and Fistula—Calculus Concretions behind seat of Stricture.

A man aged 44-5 years, formerly a soldier in the Spanish service, now a town labourer, applied at Hospital with a large abscess, partially circumscribed, and occupying the anterior part of the perineum, and the adjoining portion of the scrotum. The ordinary local symptoms and considerable constitutional disturbance accompanied it. It appeared to originate from injury done to the urethra, in an attempt, some days previous, to pass a gum-elastic catheter through a stricture of old standing in the region of the bulb. The man was a perfect adept in the use of an instrument, and kept at bay for seven or eight years a stricture which had previously been most unmanageable and serious, as appeared from cicatrices in his scrotum and perineum, formerly connected with it. The requisite treatment for the abscess was adopted, *fistula in perineo* was its temporary result, and after a short time this healed, No. 8 catheter being passed with ease, and occasional vesical irritation alone remaining. His general health had also vastly improved, and, with the exception of alternating mucous and purulent deposits in the urine, and those not in large quantity, this secretion, as to quantity, density, and reaction, were tolerable. Under these circum-

tack of inflammatory phimosis, from exposure to venereal infection; whether gonorrhoea accompanied it or not is not quite certain. A patch of gangrene of the prepuce took place in the usual situation, which it would appear was too limited to allow the glans to pass through it. At this spot the glans and prepuce became consolidated together, and a foramen exists at the margin of the cicatrix, which admits the point of a catheter, about No. 10 size, to course around the glans. A hard osseous-feeling plate, to the extent of about a sixpence, occupies this locality, and is matted to the glans. This man has married twice; he has had no family by either wife, although each was of early age, and in good bodily health. He has always suffered an uncomfortable feeling at the end of coition, as if some obstruction existed; and I have seen partial priapism after the introduction of a bougie or catheter, and have satisfied myself that a regular valve is then thrown across the urethral orifice by the contracted prepuce. That stricture arises from this contingency I am fully satisfied, and that effectual treatment of that disease is interrupted by it I am much disposed to think.

stances he left the hospital. He was a man extremely observant of his symptoms, and very intelligent. After a fortnight he again applied to me, and stated, that although he could pass No. 6 or 8 catheter with ease, he had an amount of irritability of bladder he could not account for, that there was constant uneasiness, often producing pain about the anus, and that, to his sensations, there was a small moveable pebble, as he termed it, behind the seat of the stricture, that he often felt it when making water, and again in the perineum when he moved about. I now introduced a short metallic bougie into the urethra, and when it reached about the membranous portion I felt a distinct grating of a calculus. I passed a sound, when it was equally manifest, and with the finger in the rectum, not a doubt could be entertained of its presence and situation. I recommended the man to return to hospital, and contemplated either the crushing the calculus with a small lithotrite, or removing it by excision through the perineum. In the interim larger instruments were from day to day introduced into the bladder, and allowed to remain for a time. Small and irregular pieces of concretion, distinctly phosphatic, passed off; and on one occasion a large mass obstructed the passage, when, with assistance, and with the finger in the rectum, by forcible compression, he crushed it and relieved himself. Whilst in hospital many similar portions escaped, they gradually disappeared, and he now continues very well, free from any former annoyance. The bladder is tolerant of at least half a pint of urine at a time, and the stream is continuous and large. He still, however, manages the stricture as heretofore.

In the dilated portions of the urethra behind a stricture, if such dilatation should exist, it is by no means unfrequent to meet with distinct and separate masses of those concretions; the more minute of them sometimes become fixed in the narrowed portion of the canal, and the still more minute portions coating its interior, produce the most agonising sufferings, as in the following distressing case.

CASE 7.

Stricture complicated with Calculous Concretions in the Urethra—Recurring attacks of Retention of Urine, from their presence in the Stricture—Uncontrollable Irritability of Bladder—Lateral Operation of Lithotomy.

A man, beyond middle age, hitherto in comfortable and independent circumstances, and with a peculiarly sallow aspect, was, in early life, intemperate in his habits, and afterwards most unfortunate in his speculations in business. For some years past he had laboured under stricture of the urethra, and between his sufferings from it, and from mental annoyances, he had latterly

become an opium eater. Whilst under treatment, during one of his severe attacks, I was brought by a medical friend to relieve him from retention of urine. Amongst the several cases I witnessed of the disease, I never met with one accompanied with more excruciating sufferings. Many unsuccessful attempts had been made, before my visit, to introduce instruments into the bladder, and thus failure had only tended to add to his misery. His penis and his dress were saturated with abominably fetid urine, constantly dribbling from the urethra; in fact the whole organ was as irritable as the poor man himself, and he dreaded even the approach of a surgeon. He described his sufferings as being particularly agonising, from the passage of gritty particles in the urine, and the sudden stop to its flow from the presence of larger portions in the stricture. He was constantly squeezing the penis and the perineum, as if to force them back. In the deposit of the highly morbid urine which he had near him, these particles were quite visible, forming dirty whitish patches, dappling the surface of the viscid mucus; they were visible even on the sides of the urinal, and were easily felt gritting between the fingers. The microscope confirmed their phosphatic character. I need not add that very considerable constitutional disturbance was also present. He was now tired out with general treatment, and would submit to none further. The whole theme of his complaint was the painful distress in his efforts to pass water, and the unceasing calls to do so; he wished for the introduction of an instrument, and yet he dreaded it, as all previous attempts had failed. At last he hazarded the trial of one, and selecting a No. 4 gum-elastic catheter, provided with a well-fitting and firm stillette, it luckily reached the bladder without much interruption. It was firmly grasped whilst entering a stricture about the bulb, and gave the distinct sensation as if passing through a tube of the coarsest sand-paper. Not less than half a pint of urine escaped, and with great relief, but, unfortunately, only temporary. The catheter, which I had secured in the bladder, now became blocked with tenacious mucus, and after six or eight hours all the symptoms of fresh retention of urine returned. In his impatience he removed the instrument, and again and again there were demands for its introduction. Under its use and ordinary general management the stream of urine ultimately improved, and many small calculous particles escaped. The stricture yet was very irritable, and was liable to repeated attacks of spasms, which no treatment relieved. His large doses of laudanum, which often exceeded two ounces in twenty-four hours, were perfectly futile, and no other anodyne or other treatment was of a particle of benefit. At last under the partial effects of chloroform, I reached up to No. 8 silver catheter, and some improvement in his symptoms took place, but not of any moment. Still more satisfactory evidence

now existed of the presence of distinct calculous concretions beyond the seat of the stricture, and with the instrument in the bladder, they could be distinctly felt through the rectum. The man could roll them away with his finger, when they interrupted the stream of urine, and so relieve himself. About this period the late Sir Philip Crampton met me in consultation, satisfied himself as to the nature of the case, and, unpromising as it was in every respect, considered I was yet justified in complying with the desire of the man to make an effort to remove the calculi by operation, as ordinary expedients or lithotrixy were wholly inadmissible, as well from the contracted condition of the urethra, and its extreme sensibility, as from the excessive irritability of the bladder. With this object in view the man was transferred to hospital. The impression being, from the history of the case, that the calculi might occasionally pass into the bladder, or that an additional calculus existed there, and the sound confirming such supposition, I at first contemplated that Allarton's operation would have answered all purposes; subsequently, however, it was decided that the ordinary lateral operation would be the more advisable, as it was apprehended the vesical calculus, if present, might be large, and no measurement of it could be attained. Doubts, however, could not otherwise than exist on the subject, from the utter impossibility of commanding a searching movement of the staff or sound, it was so absolutely viced in the urethra, and from the deceptive sensations communicated by the presence of calculi in the canal. Neither were the effects of chloroform satisfactory, most annoying spasmodic muscular movements occurring under it throughout the whole proceedings, although pain was wholly annulled. However, the lateral operation of lithotomy was performed safely and expeditiously. The knife grated against the calculi in its course, but, to my discomfiture, only a few minute portions of concretion were found in the bladder, and of so small a size that it was impossible to seize them with the forceps. When suppuration was established, however, two portions, about the size of a garden pea each, were removed from the deepest angle of the wound. They crumbled under the forceps. No untoward result arose from the operation, but I could not say that any substantial relief was given to the principal sufferings of the man; the wound healed in due time; the stream of urine was improved, but the irritable bladder and urethra continued to annoy him, and the urine continued alkaline. He left the hospital at the end of a month or so, took a sudden dislike to opium in any form, and to all kind of non-nutrition; his stomach became irritable, and when apparently improving, he was suddenly carried off by a fit, which, from the description given to me, was epileptic.

I secured the urinary organs. The kidneys

were congested, and somewhat hypertrophied; the pelves and ureters were dilated, but not very much so; there were local signs of pyeletis; the bladder was not as much contracted as might have been expected, neither were its walls very much thickened; a pouch was found at its upper fundus, and the usual trabecular arrangements of its muscular coat were present; there were the signs of chronic cystitis; there was no calculus of any description in the bladder; there was a very remarkably developed cross bar behind the prostate gland, which latter was not much altered either as to size or structure. The wound in the urethra, the result of the operation, was cicatrised and accurate in its extent. The site of the stricture was at the commencement of the bulb; nothing peculiar was to be noted in its anatomical characters.

Numerous practical reflections suggest themselves in connexion with this case, and especially as regards the diagnostic symptoms of those special concretions and their treatment. They may, perhaps, be better considered in the sequel; and with the following case I will conclude this class of them.

CASE 8.

Retention of Urine—Calculus Concretion behind Seat of Stricture—Bursting of Urethra—Gangrene of Scrotum.

A butcher's slaughterer, aged about 40 years, had been for a long period labouring under stricture. Leading a life of continued dissipation, he was constantly attacked with retention of urine, for which he sought relief at the adjoining dispensary or hospital. His general health did not appear to be materially impaired by it. After a fit of drinking he was again seized with retention of urine; he neglected applying for assistance for some days, when, being attacked with fever, he was supposed to be labouring under the prevailing epidemic. He was brought to hospital; all the local symptoms of ruptured urethra were found. The bladder was empty. The scrotum was one sheet of gangrene; the pulse was tolerable; the temperature uniform; but every other symptom was most unfavourable. Temporary relief followed the ordinary local and general treatment. The gangrene, however, advanced, and coma was superadded to the after symptoms. He died in about thirty-six hours after admission into hospital.

The stricture lay in front of the bulb; the urethra there, and behind the strictured portion, presented a shreddy slough throughout; and a calculous mass, about the size of a small spanish nut, was contained within it. It was distinctly phosphatic.

OPERATION FOR THE RADICAL CURE OF PROLAPSUS UTERI.

By FRANCIS B. QUINLAN, M.B. T.C.D.,

Surgeon to St. Vincent's Hospital.

Maria H——, aged 48, was admitted into St. Vincent's Hospital, labouring under prolapsus of the uterus. She stated that she was the mother of five children, but was now a widow. During her last confinement, which happened in Gibraltar, about four years ago, she was attended by a Spanish midwife, who delivered her on her knees, with her head resting on a pillow, which, it appears, is the obstetric position usually adopted in Spain. During this delivery, laceration of the perineum took place; she never menstruated since. Soon afterwards the uterus began occasionally to prolapse, and the liability to this accident increased, until, at the time of her admission, it occurred whenever she walked any distance, stooped, or ascended the stairs.

On examination, I detected the rupture of the perineum to which she had alluded; it was about three quarters of an inch long; it was lined with a substance resembling mucous membrane, and was evidently of some standing. The os uteri looked healthy, and did not present any appearance of congestion. I considered, therefore, that this was a suitable case for the plastic operation on the perineum recommended by Mr. Baker Browne, of London.

After some previous preparation, the bowels having been thoroughly emptied the day before, on Friday, August 13th, the operation was performed as follows:—The patient having been placed in the position for lithotomy, I dissected down a portion of the left labium, about two inches long, about a third of an inch thick, and extending about an inch and a quarter into the vagina. I made a corresponding section on the right labium, and having rendered the recto-vaginal septum tense by the introduction of a gorget into the rectum, I removed a horse-shoe-shaped piece, composed of the portions dissected from the labia and the mucous membrane of the vagina connecting them. Considerable hæmorrhage ensued, which was arrested by compression and cold. Introducing my left forefinger into the rectum, I completely divided the sphincter ani on both sides, about quarter of an inch in front of its attachment to the coccyx. Having ascertained, by a careful examination of the piece removed and of the place from which it had been taken, that no portion of mucous membrane was left, I joined together the cut surfaces, by three quilled sutures, at their deep, and four interrupted sutures at their superficial margins. The patient's knees were firmly bound together, and she was removed to bed; two grains of opium were ordered immediately, and a grain every three hours. Finding that the

introduction of the catheter was attended with much pain and disturbance of the wound, I ordered the patient to be supplied with a soft sponge, which, being applied when necessary, completely answered the purpose.

August 14.—She is going on extremely well; the tongue, however, is becoming brown, and the grain doses of opium are evidently deranging the system. I ordered, instead, two grains of acetate of lead, with a quarter of a grain of opium, three times a day. This kept the bowels perfectly quiet. A considerable quantity of flatus has escaped from time to time; this, however, owing to the inaction of the sphincter ani consequent on its division, has not disturbed the wound.

August 18.—Two of the superficial and one of the deep sutures removed.

August 19.—The remaining superficial and one of the deep sutures removed; the deep suture next the vagina being still left.

August 20.—The last suture removed. Firm union is established along the whole cut surfaces. She can now pass water by turning on her face.

August 27.—The bowels having been kept confined since the operation, I thought that the parts were sufficiently consolidated to admit of their being moved. Accordingly, a large warm cathartic enema was administered through O'Beirne's tube, and a castor-oil draught given a few hours after. The evacuation of the bowels, although very copious, was not attended with any considerable pain.

Thursday, September 2.—She got up and walked about to-day, wearing for the present, as a precautionary measure, the bandage delineated by Mr. B. Browne. The whole track of the operation, comprising about three-quarters of an inch of the old perineum, and about the same length of the approximated surfaces of the vagina, is firmly joined together. The cicatrix can be felt inside the vagina. The sphincter ani has united, and has completely recovered its tone.

September 4.—Discharged.

I have described this case rather minutely, as it is, as far as I can learn, the first instance in which the operation has been performed in Dublin. Judging from the successful result obtained on the present occasion, I have no hesitation in recommending the operation, as simple of performance and as likely to prove permanently beneficial. I used iron wire in the quilled, and silver wire in the interrupted sutures; however, I should now prefer the silver wire for both, as much less irritating, it being next to impossible to procure the iron wire perfectly free from rust.

With regard to the division of the sphincter ani, I consider that it is indispensable—the more so because, as is shown by the operation for anal fistula, it is a proceeding not attended with any considerable risk.

I take this opportunity of briefly describing a

CASE OF NÆVUS CURED BY INJECTION WITH TANNIC ACID.

Eliza B——, aged 9 months, has a subcutaneous nævus on the left cheek, about midway between the angles of the mouth and jaw. Her mother states that she observed this immediately after birth; it was then almost imperceptible, but has gradually increased, until it is now somewhat larger than a shilling. It can be almost emptied by pressure. The skin covering it is healthy. Two veins of considerable size lead from it.

Saturday, August 21.—I introduced a cataract needle into the upper portion of the nævus, and broke up its structure. I then inserted a very fine platinum canula, and, by means of a small platinum screw-action syringe, constructed for this purpose, injected a scruple of solution of tannic acid, of the strength of a drachm of acid to the ounce of distilled water. I repeated the same manoeuvre in the two other most prominent parts, until the nævus became well distended. Coagulation quickly ensued, as was shown by the almost stony hardness which the nævus assumed.

Eight, p.m., same day.—Left side of the face considerably swelled; nævus somewhat inflamed. Ordered the part to be fomented with cloths wrung out of hot water. To take a little hydrarg: c. creta.

August 23.—The swelling of the face is quite gone down; the nævus appears to be undergoing a kind of chronic inflammation; the epidermis over it is desquamating.

Friday, September 3.—The site of the nævus is occupied by a tumor resembling the induration left after a boil. There is no trace of dilated vessels. The two veins before alluded to have almost disappeared.

September 7.—The induration appears to be undergoing gradual absorption; the three openings made by the canula are healed up.

This plan is recommended by Mr. Haynes Walton, in the *Lancet* of May 8th, of the present year. He states that solution of tannic acid is preferable to tincture of perchloride of iron, inasmuch as it produces a peculiar coagulation of the blood, and is free from the risk of sloughing.

ON DIPHTHERITIC CONJUNCTIVITIS.

By JAMES G. HILDIGE, M.D.

There are few diseases which attack the human eye, so destructive in their effects as diphtheritic conjunctivitis; the more so as it generally occurs in subjects of a syphilitic or scrofulous diathesis, and consequently less amenable to treatment.

During the years 1856–57 I had considerable opportunities afforded me of studying this disease,

and the different modes of treatment employed, at the principal Austrian and Prussian ophthalmic hospitals, particularly in the wards of Professor von Graefe's Eye *clinique*, at Berlin, where, probably, a greater number of cases of it are to be met with than elsewhere. According to my own observation, this form of conjunctivitis occurs most frequently in the ill-ventilated quarters of large towns, and is considerably influenced by climate, mode of life, &c. Children of three or four years of age are much more subject to it than infants, probably on account of the blood of the latter being deficient in fibrine; however, almost all subjects who are attacked by it are, according to von Graefe's experience, suffering from a constitutional disease, of which the diphtheritic inflammation is but a local symptom. A simple attack of phlyctenular or catarrhal conjunctivitis in a person suffering from scrofula, or who has had his constitution impaired by mercury or syphilis, shows a decided disinclination to yield to treatment; and when collyria, &c., are injudiciously employed, rapidly assumes a diphtheritic type. When the patient is seen at the commencement of the disease, the diphtheritic process can generally be arrested in from twenty-four to thirty-six hours; unfortunately, however, he is seldom seen until the disease has arrived at the second, or even the third stage, when it presents something like the following appearance:—The eyelids are very much swollen, and of a light-red colour, the folds of the integument being completely obliterated; the parts in the neighbourhood of the eye are in most cases cedematous (this, however, depends on the stage of the disease—in the third stage it is always present); the integument of the lower lid and cheek is excoriated, owing to the acrid nature of the secretion, which is of a thin serous appearance, and contains stringy masses, something resembling coagulated milk. On everting the lid, which is done with difficulty, owing to the mass of exudation, and to the all but complete arrest of circulation in the parts, the mucous membrane, contrary to expectation, presents rather a light grayish appearance, marked here and there with spots of apoplectic exudation. There are no granulations, at least what can be properly termed such, but nodule-like bodies, more or less numerous, are visible on the tarsal portion of the conjunctiva, particularly on its reflected fold. On examining this portion of the conjunctiva with the finger, it is found to be exceedingly tense and resistant; the exudation is deposited in its parenchyma, and not on its surface, as in croupoid inflammation. The conjunctiva bulbi is generally secondarily affected, the exudation, in most cases, elevates it higher than the cornea, and gives it the same hard tense feel as the tarsal portion. When the cornea is affected early in the disease, the progress of the diphtheritic process is generally more rapid; a light opacity is observed in the centre of it, which rapidly becomes deeper, and perforation is in most cases the result.

According to von Graefe, this kind of perforation closes in a remarkably short space of time, owing to the high degree of plasticity of the exudation. The Meibomian glands are completely invisible, on account of the swelling of the conjunctiva, and the mass of exudation therein deposited.

There is a marked distinction between this disease and blenorrhœa, with which it has often been confounded; and the diagnosis of it is a point of the greatest importance, inasmuch as the treatment of both diseases differs materially. Von Graefe, in speaking of diphtheritic conjunctivitis, says—"But, before all, the extreme degree of heat developed in this disease is most remarkable: it reaches the very highest grade, often amounting to calor mordax, so that the compresses of cold water must be changed every twenty or thirty seconds; whilst in blenorrhœa the heat of the lids is almost always moderate, and the compresses can remain one minute and a half or two minutes without requiring to be changed. The swelling of the conjunctiva is also more considerable than in blenorrhœa, but, when incised, does not pour out blood so copiously, simply for the reason that the pressure caused by the exudation has retarded or almost stopped the circulation. In blenorrhœa the conjunctiva is relaxed, and full of fluid exudation; whilst in diphtheritis it is tense, and filled with a rigid, tough deposit. Consequently, an eyelid affected with blenorrhœa is soft, puffed up, and easy to evert; in diphtheritic inflammation, on the contrary, it is tense and immovable, and, in a word, is poor in circulating blood."

With regard to the secretion, essential differences also present themselves. The secretion of blenorrhœa is not by any means of an acrid nature, and does not, according to Schauenberg, take on the process of fermentation so rapidly as that of diphtheritis; it is of a clear yellow colour, and consists of a tolerably homogeneous matter; that of diphtheritis is exactly the reverse, consisting of a dirty-grey sediment, with shreds of a caseous-like matter floating about in it.

There is a peculiar mottled appearance of the tarsal conjunctiva which I have observed in almost every case of the disease that I have seen, and which is described by the above writer as pathognomonic of it; it generally occurs in the first stage, and is formed by exudation of blood from the veins, poured out on the light-red conjunctiva, giving it an appearance of marble, and cannot fail to strike the observer at the first glance. It gradually becomes fainter as the disease retrogrades. That this affection is symptomatic of a constitutional disease cannot be doubted, because, out of forty cases that were treated by von Graefe, death occurred three times from croup, several times from pneumonia and hydrocephalus, and diphtheritic inflammation of the angles of the mouth and of the sides of the nostrils, or where blisters had been applied a short time previously, it was also a frequent accompaniment. The disease is accompanied by a

lively degree of fever, attended with periodic exacerbations of the heat of the head, complete loss of appetite, and extraordinary dejection. It stands in nearer relationship to congenital syphilis than to any other disease, as, in forty cases of diphtheritic inflammation in children, one-fifth of the number bore infallible signs of this disease.*

Dr. Magne, in a recent article read by him before the Academy of Medicine of Paris, stated that diphtheritic conjunctivitis was not contagious, and that it was amenable to treatment. The first part of this statement is decidedly erroneous, because an attack of ophthalmia is always the result when the matter comes in contact with a healthy eye; it does not always follow, however, that the ophthalmia is of the diphtheritic form; for when the patient is of a sound, healthy constitution, a simple blennorrhœa may be the result; on the other hand, when the constitution is weak, and tainted with scrofula or syphilis, diphtheritic inflammation is sure to follow.†

Whilst in blennorrhœa binding the healthy eye is sufficient to protect it from contagion, this precaution is by no means a certain safeguard in diphtheritic inflammation; we must not, however, abstain from it, for besides the constitutional cause of the disease, there is a decided one arising from contagion.‡

With regard to the latter part of Dr. Magne's statement, that the disease is amenable to treatment, it is to a certain extent correct, provided it be treated on its first appearance; its course is, however, so rapid, that the cornea is often in a sloughing state before the patient applies for relief. The following treatment, which I have seen practised with great success, has been recommended by von Graefe:—Small repeated doses of calomel, according to the age of the patient—to infants, for instance, he gives one-fourth, one-third, or half a grain, every two hours, day and night, according to the intensity of the disease; he at the same time applies compresses of ice-cold water over the eye, and leeches at the inner angles of it, or on the side of the nose; and in intense cases he keeps up a continuous stream of blood until the symptoms commence to abate. The temperature of the ice compresses must be gradually increased to the heat of the room, and by degrees left off for half an hour or so at a time, and gradually discontinued

as the disease declines. The rubbing-in of mercurial ointment is also practised by the above surgeon: in grown-up persons he rubs in from one to two drachms three times a day, and in infants, from half a scruple to a scruple. The eye must be kept carefully clean, and this is far more necessary in this disease than in blennorrhœa, on account of, as has been before stated, the more acrid nature of the secretion. One of the best remedies for this purpose is milk, which is, at the same time, grateful to the patient.

Epidemics of diphtheritic conjunctivitis occur frequently in Berlin. From six to seven thousand patients present themselves annually at von Graefe's *clinique*; and often during a period of several months not a single case occurs, whilst at other times seven or eight patients are under treatment at the same time. The disease is epidemic most frequently in spring and autumn. The first cases are generally more acute than those that occur at a later period, as affections of the cornea generally occur a few hours after the commencement of the disease; and this is an important point with regard to the prognosis.

Sporadic cases of diphtheritic conjunctivitis have been mentioned by Mr. Bowman, of London, but I am not aware that any person, except von Graefe, has described it as occurring epidemically.

Reviews.

Clinical Lectures on the Principles and Practice of Medicine. By J. H. BENNETT, M.D., F.R.S.E., Professor of the Institutes of Medicine, &c., &c. Second Edition, Illustrated. A. and C. Black, Edinburgh. 1858.

If we have delayed noticing this valuable treatise on the modern Practice of Medicine, it was not from any doubt as to the great credit which it reflects on its distinguished author. Though apparently a new edition only, it is in reality a new work; and we regard it as a model of the manner in which clinical instruction is to be taught and studied. Upwards of two hundred well observed and well described cases illustrate its pages, and bring no less vividly before the mind the diseases embodied in the work, than do the woodcuts, which are profusely introduced, the pathological changes described, before the eye.

The work is eminently practical, and, as such, should be in the hands of every practitioner; whilst to the student it will be a safe guide in his clinical studies. The first section, indeed, is specially written for the student; it describes fully and clearly the general principles which are to guide us in making the clinical examination of a patient. The signs furnished by outward inspection, by the touch, by percussion and auscultation, are in succession described. An admirable ac-

* Vide von Graefe über die diphtheritische conjunctivitis, *Archiv für Ophthalmologie*, vol. i, sect. 1.

† In a case which was under my own observation, in one of the Ophthalmic *cliniques* in Vienna, inoculation was resorted to, in order to bring about a healthy state of the cornea, which was affected with *pannus* of some six months' standing. The patient was a man of thirty years of age, and had suffered considerably from syphilis and the effects of mercury. The matter was taken from the eye of a person suffering from simple blennorrhœa, and was placed, by means of a small brush, under the patient's eyelids. The most intense diphtheritic inflammation followed, and notwithstanding the most active antiphlogistic treatment, the eye was irretrievably lost.

‡ Vide *Archiv für Ophthalmologie*, vol. I, sect. 1.

count of the mode of using the microscope, and its application to diagnosis, follows.

In the subsequent sections we recognize many subjects with which Professor Bennett's name has been long associated; as, for example, the "Pathology, Diagnosis, and Treatment of the different forms of Exudation—Simple, Cancerous, and Tubercular;" "The Pathology of Cerebral Softenings, and on the necessity of employing the Microscope to ascertain their Nature;" "Leucocythemia," &c.

In our necessarily brief notice we cannot, as we would wish, give extracts from the work itself; but as the author's claim to the prior recognition of this remarkable disease has been disputed, we will give his own plain account of the matter:—

"On the 19th of March, 1845, I examined the body of a man who died under the care of Professor Christison, in the Royal Infirmary, labouring under hypertrophy of the spleen and liver, and whose blood was crowded with corpuscles which exactly resembled those of pus. This case was the first of the kind in which a careful histological examination of the blood was made, and in which the remarkable morbid condition then discovered was separated from ordinary pyæmia, and shown to be unconnected with any form of inflammation. It was published in the *Edinburgh Medical and Surgical Journal*, October 1st, 1845, vol. lxi., p. 413. Dr. Craigie, who was present at the dissection, recognised its similarity to one he had had under his care four years previously, the blood of which had been examined microscopically by Dr. John Reid, who found 'that it contained globules of purulent matter and lymph.' An account of it appeared in the same number of the *Edinburgh Journal* for October, 1845. Six weeks after these cases had been published, Professor Virchow, of Berlin, gave the history of another, in the second number for November, 1845, of *Froriep's Notizen* (No. 780), under the name of 'Leukhemia,' or white blood. On the 31st of December, 1845, a man was received into St. George's Hospital, London, in whom Dr. Fuller detected, both before and after death, the increased number of colourless corpuscles in the blood. This man, like the other individuals, had great hypertrophy of the spleen. A notice of the case is inserted in the *Lancet* for July, 1846. Since then several similar cases have been met with, in which this morbid condition of the blood has been determined to exist, by an accurate examination with the microscope; and a reference to the records of medicine has shown the previous occurrence of like cases. In these last the blood, with two exceptions, was not physically proved to contain an unusual number of colourless corpuscles, although now, on looking back upon the facts which are mentioned in regard to them, we can have little doubt that such was the case. The exceptional cases occurred to M. Barth, in 1839, and Dr. Craigie, in 1841. In the first, M. Donné found one-half the corpuscles in the blood to be 'mucous globules;' and in the second, Dr. John Reid found that the blood 'contained globules of purulent matter and lymph.'

"The term 'Leukhemia,' or white blood, given to this disease by Virchow, is faulty, because, in the first place, as was correctly stated by Dr. Parkes, the blood is not white, but presents its usual red tinge when drawn from the arm. The colourless clots occasionally observed after death will certainly not warrant the application of this term to the blood generally, as they are frequently present without the morbid condition under consideration. Besides, the same name (white blood) has been given with more propriety to the fatty blood examined by Drs. Traill, Christison, and others, which presents a milky, opalescent appearance. At the meeting of the Academy of Medicine, in Paris, on January

29th, 1856, the members were naturally enough led into great confusion, in consequence of not keeping this distinction in view. What ought to be expressed is, that the blood abounds in colourless corpuscles, and this is done by the term *Leucocythemia*, literally, white cell blood, which expresses the simple fact, or pathological state, and involves no theory. Throughout England and France this name has been universally adopted."

The subject of Diseases of the Skin is much simplified. For clinical purposes, the classification of Willan and Bateman is preferred to that of either Alibert or Bielt; some modifications are, however, introduced by the author; thus, the essentially febrile skin diseases are abstracted altogether—as measles, scarlatina, small-pox, &c. The class *Bullæ* is expunged, *Pemphigus* being referred to the *vesiculæ*, and *Rupia* to the *pustulæ*; and two new orders are introduced to include those affections which depend on the presence of parasitic animals and plants, and which are called respectively *Dermatozoa* and *Dermatophyta*. Bennett's classification accordingly stands thus:—

ORDER I.— <i>Exanthemata</i> .	ORDER VI.— <i>Tubercula</i> .
Erythema.	Lepa Tuberculosa.
Roseola.	Lupus.
Urticaria.	Molluscum.
ORDER II.— <i>Vesiculæ</i> .	ORDER VII.— <i>Maculæ</i> .
Ecsema.	Lentigo.
Herpes.	Ephelides.
Scabies.	Nævi.
Pemphigus.	Purpura.
ORDER III.— <i>Pustulæ</i> .	ORDER VIII.— <i>Dermatozoa</i>
Impetigo.	Eutozon folliculo-
Ecthyma.	rum.
Acne.	Acarus.
Rupia.	Pediculus.
ORDER IV.— <i>Papulæ</i> .	ORDER IX.— <i>Dermatophyta</i>
Lichen.	Achorion Schönleini
Prurigo.	(Favus).
ORDER V.— <i>Squamæ</i> .	Achorion Grubii
Psoriasis.	(Mentagra).*
Pityriasis.	
Ichthyosis.	

We feel conscious that in so brief a notice of a work on which so much time and labour has been expended, we have not done justice to Professor Bennett; but we feel certain that the unanimous opinion of the Profession will prove that the author has widely extended his reputation, in the accomplishment of his task.

* In a note Professor Bennett says, "It has been objected to the words *porrigophyte* and *mentagraphyte*, introduced by Gruby, that they are unclassical; and as the celebrated Botanist, Link, after carefully examining these vegetations, has described the former as a new genus, under the head of *Achorion* (from *achor*, the old term given to a favus crust by Willan), I have thought it best to adopt that term. To mark the variety in favus, he has added the name of its discoverer, Schönlein; and I have ventured, at all events provisionally, to distinguish the one described as existing in mentagra, by adding to it also that of its discoverer, Gruby."

URIC AND URIC ACID, according to Dr. Porcher, is absent in cases of yellow fever. In forty cases examined by him, he invariably failed to find these matters present.

Selections from British & Foreign Journals.

AN EXPERIMENTAL INQUIRY INTO THE ALLEGED SUGAR-FORMING FUNCTION OF THE LIVER.

By F. W. PAVY, M.D.

The author commenced by stating that the question to be discussed in his communication was, not whether sugar was to be found in the animal system independently of a saccharine alimentation,—for that he considered to stand upon irrefutable ground—but whether the sugar encountered in the liver *after death* was a natural representation of the condition during life, or was only the result of a *post-mortem* occurrence. He had noticed, as early as February, 1854, that the blood removed by catheterism of the right ventricle during life was almost completely destitute of saccharine impregnation. The observation did not then, however, receive the attention it deserved; but on repeating the experiment at a later period, and meeting with a similar result, an investigation was made, which has led to the conclusions advanced in his communication.

From upwards of sixty observations it is asserted, that the condition of the blood after death can no longer be taken as indicating its state during life; for if blood be withdrawn from the right ventricle of the living animal in a natural or tranquil state, there is scarcely an appreciable amount of sugar to be discovered; whilst, if the animal be afterwards sacrificed, and blood collected from a fine incision of the ventricle, it will be found to present a strong indication of the presence of sugar. In one of the experiments quoted there was a barely appreciable reaction in the blood removed during life, and nearly 1 per cent. of sugar in the blood collected after death, the animal having been sacrificed immediately after catheterism has been performed.

Observing this striking contrast in the blood abstracted from the right ventricle *before* and *after* death, the possibility occurred that there might be a corresponding contrast in the organ that was considered to be specially endowed with a sugar-forming function. The recent researches of Bernard had taught us, that a material naturally existed in the liver, which was extremely susceptible of conversion into sugar. It was this material, in fact, which was looked upon as giving rise to the sugar thought to be largely present in the liver during life. At the outset of the inquiry an agent was sought for which would check the transformation of the sugar-forming material after death, and thus present the liver in a condition as near as possible to that which existed during life. Potash was found to possess this effect, without destroying the principles concerned. A strong solution of it was then injected, as instantly after death as practicable, through the portal vein, into the liver; and,

as the result, the organ presented scarcely any appreciable trace of the presence of sugar. A liver similarly treated when it had been allowed to remain a short period after death, gave the usual strong reaction of sugar that has been hitherto noticed. By injecting only a part of the organ with the alkali, it is most strikingly susceptible of demonstration, that the presence of sugar is in reality due to a *post-mortem* occurrence, and can therefore be no longer looked upon as a representation of the natural *ante-mortem* condition.

The sudden abstraction of heat from the liver instantly after death leads to a similar arrest of the production of sugar, and thus enables us likewise to represent the real condition of the organ belonging to life. In one of the experiments mentioned, where a dog was sacrificed, and a piece of the liver instantly sliced off, and thrown into a freezing mixture of ice and salt, the absence of sugar was almost complete; the amount, at least, was so small, that it was found impossible to arrive at a quantitative determination with a concentrated spirituous extract, notwithstanding the process is susceptible of so great a delicacy. The portion of the liver which was not submitted to the action of cold, and which was allowed to remain a short time in the animal, yielded, on analysis, an indication of 2.96 per cent. of sugar.

Division of the spinal cord in the lower part of the cervical region, the effects of which have been noticed by Bernard, but differently interpreted, leads to a corroboration of the deductions drawn from the preceding experiments. When the weather is cold or moderate, the operation is followed by a gradual reduction of temperature; and if the animal be sacrificed when its body has cooled down to about 70°, the liver is found free from sugar, upon an ordinary immediate examination, because at such a degree the *post-mortem* transformation is not effected with sufficient rapidity to lead to our deception; placed aside, however, it soon becomes strongly saccharine. Should the operation of division of the cord be performed, and the temperature of the animal be afterwards maintained at about the ordinary height by exposure to external warmth, then the liver is as strongly saccharine, upon ordinary examination after death, as if the animal had been taken and simply sacrificed.

By oiling the coats of rabbits, and exposing them to cold, the temperature of the body falls, and precisely the same phenomena are noticed as after division of the cord.

With frogs in a vigorous condition, the presence or absence of sugar in the liver submitted to the ordinary process of examination after death, is dependent upon the temperature of the animal at the time of the destruction of life. This fact was independently noticed by myself, about the time that it was mentioned by Bernard in a communication to the Parisian Academy of Sciences. Bernard's interpretation of it is connected with the relative activity of the abdominal circulation; but for my-

self, I bring it forward as strongly supporting the views that have been advanced, and consider it to be explained by the influence of temperature on the *post-mortem* production of sugar.

The material which occasions the presence of sugar in the dead liver has been called by Bernard "Glucogenic matter"—a term which, being only specially applicable after death, it is suggested should be abandoned, and replaced by Hepatine.

The amount of hepaticine in the liver of the dog is much greater under a vegetable than an animal diet; the amount is also increased by mixing sugar with animal food. From the examples given it is shown likewise that the relative weight of the liver presents a proportionate variation, according to the quantity of hepaticine present. In eleven dogs taken indiscriminately, that had been restricted to an animal diet, the weight of the liver was one-thirtieth that of the animal. The average per-centage of hepaticine yielded by eight livers, also taken indiscriminately after an animal diet, was 6·97. Five instances have been collected of dogs restricted to a vegetable diet for some days prior to death. The average weight of the liver was one-fifteenth that of the animal. In only three of the examples was the actual amount of hepaticine determined, but in the other two it was noticed to be exceedingly large. The average given by the three was 17·23 per cent. Four dogs were placed upon an animal diet, and about a quarter of a pound of ordinary cane-sugar administered daily for a short period. The average weight given by the four livers was one-sixteenth and a half that of the animal, and the average amount of hepaticine yielded was 14·5 per cent.

The natural destination of hepaticine in the living body remains to be determined. It has also to be shown how it resists transformation into sugar during life, when it is so rapidly changed at an elevated temperature immediately after death. A possible analogy may be presented by the following occurrence:—When a solution of hepaticine, in a *neutral state*, is placed in contact with saliva, an almost instantaneous transformation into sugar takes place; but if a little acid alkali or carbonated alkali be added, scarcely a trace of change is for some time discoverable.

Under normal circumstances, rarely an appreciable amount of sugar is to be encountered in the circulatory system—only, according to my analyses, from about ·047 to ·073 of a grain in 100 grains of defibrinated right-ventricular blood; and this would appear to result rather from a simple escape of a small amount of hepaticine from the tissue of the liver into the blood, whilst circulating through the capillaries, than from a special functional operation of the organ; for when a disturbance of the circulation, whether by congestion or the opposite, is occasioned, sugar makes its appearance to a considerable extent in the system, because the admixture of hepaticine with the blood is favoured. It can be easily shown by experi-

ment, that on introducing hepaticine into the circulatory system, a saccharine state of the blood is induced; and if enough have been employed, a strongly-marked diabetic condition of urine is established.

Sacrificing an animal, and maintaining the circulation by performing artificial respiration, occasions a well-marked diabetes. With the destruction of life, the transformation of hepaticine into sugar takes place, and this, being carried away by the blood, is eliminated by the kidneys, and thus renders the urine strongly saccharine.

Many phenomena which were before obscurely explained, receive a lucid interpretation from the new facts which have now been brought to light.—*Proceedings of Royal Society.*

ON THE ADAPTATION OF THE HUMAN EYE TO VARYING DISTANCES.

By CHARLES ARCHER, Esq., Surgeon, Bengal Army.

The following is a summary of the author's views on the question:—

1. The eye is adapted to varying distances principally by an alteration in the fibrous arrangement of the lens itself. Moreover, that when the lens is removed after an operation for cataract, the power of adaptation is nearly lost, and can only be exerted within very confined distances.
2. That the purpose of focalizing light at short distances is doubtless assisted, as suggested by Bowman, by the contractions of the ciliary muscle, in its antero-posterior direction, bringing forward the ciliary processes.
3. That as the posterior hemisphere of the capsule is firmly united to the hyaloid membrane, this portion must always remain quiescent, and therefore the antero-posterior contractions of the ciliary muscle must be very limited as regards the lens.
4. That the ciliary muscle, being placed around the eye, and its fibres being of a somewhat plexiform character, the contractions of the muscle will relax those yielding portions of the eye placed within its circumference.
5. That the relaxations of the ciliary processes will deprive the capsule of its firm support. It will be pressed forward by the lens, which will meet with no further resistance to the expansion of its short axis.
6. That the lens itself, as microscopically described by Bowman and Köliker, is admirably adapted to the varying changes which take place in the capsule.
7. That the posterior capsule being firmly united to the hyaloid membrane, the alteration in the dimensions of the cavity of the capsule must take place from the periphery of the lens to its centre, and from behind forwards, but not from before backwards, on account of the close union of the posterior capsule to the hyaloid membrane.
8. That to allow such alteration to take place

without endangering the achromatism of the lens, the alterations in the plane of its long diameter must be synchronous with the alterations in the plane of its short diameter. To allow of this, the margin of the lens is free in the canal of Petit; were it not the case, chromatic aberration would result.

9. That the elasticity of the capsule of the lens and the ciliary muscle are antagonistic; that, on the ciliary muscle becoming relaxed, the capsule of the lens is free to exert that elasticity.

10. That, by the pressure exerted by the anterior hemisphere of the capsule, by means of the polygonal cells of Virchow, on the anterior face of the lens, the organ is able to fulfil all the requirements for adapting it to receive focalized light from long distances.

11. That the polygonal cells of Virchow are placed on the posterior surface of the anterior hemisphere of the capsule with the view before mentioned, and that they are arranged with their long diameters in an antero-posterior direction, that pressure may not injure their transparency, which would be the case if placed laterally.

12. That these cells are not found in other parts of the capsule.

13. That the fibres of the lens are serrated for the purpose of uniting either to other, so as to allow them greater freedom of motion without altering their ultimate relations to each other.

14. That the ciliary muscle is very highly endowed with nervous matter to supply all these varying requirements.

15. By the above postulates, all the modern discoveries in the microscopical anatomy of the eye receive a distinct expression of their individual functions, and, by so doing, adapt the organ of vision to the acknowledged laws of light.—*Ibid.*

PEMPHIGUS OF THE CONJUNCTIVA.

By MR. WHITE COOPER.

That peculiar vesicular eruption to which the term "pemphigus" has been applied, seldom, I believe, involves the eye. A well marked example, has, however, fallen under my notice, and is interesting, not only from its rarity, but from the permanent effects it has left upon the eye.

Amy S., aged twenty-four, became a patient of mine at St. Mary's Hospital in June, 1855; she was remarkable for her unhealthy chlorotic aspect, and nearly all her teeth were black and rotten. She laboured under aphonia, speaking only in whispers, and had other symptoms of hysteria and debility; in addition to these troubles, she had for some weeks been afflicted with chronic pemphigus, large bullæ appearing on her arms and legs, and running through the usual course, attended with considerable suffering; a week prior to my seeing her, her right eye had become affected, a large vesicle having formed partly on the

inner surface of the lower lid, partly on the eyeball; this had burst, and when I examined the eye the seat of the vesicle was indicated by a raw surface, secreting pus. Quinine and iron were prescribed, and a weak solution of nitrate of silver was directed to be applied to the eye twice daily.

When I saw her the following week, the right eye was better, but a bulla, the size of a large pea, presented itself on the left eye near the inner canthus; it was precisely such a vesicle as would be likely to arise from a scald, was filled with turbid serum, and its base was inflamed; it was punctured with a fine needle and a solution of nitrate of silver applied.

For three months this young woman attended at the hospital, under the joint care of myself and one of my colleagues; during the whole of this time one or other of the eyes, together with other parts of the body, were the seat of vesicles, either incipient, complete, or passing away.

To combat this condition our ingenuity was severely taxed, and steel, bark in various combinations, cod liver oil, acids and alkalis, were prescribed without any material benefit. The application of cold water to the eye during the first stage of the vesicle, and the solution of nitrate of silver afterwards, seemed to afford most relief.

I lost sight of this patient until last January, when she again presented herself at St. Mary's suffering from conjunctivitis. She stated that she had left London for the country in September, 1855, and that her health considerably improved from the change; the pemphigus gradually disappeared and she had since remained free from it; but the eyes presented very marked evidence of having been subjected to its influence. A person not acquainted with the history would have pronounced that some powerful escharotic, as lime, had been applied to them, for a series of frozen or adhesions existed. In the right eye a fleshy mass extended from the caruncle along the inner side of the lower lid nearly to the centre, and was attached by its apex to the surface of the eyeball close to the inner margin of the cornea; a row of minor adhesions existed between the eyelid and the eye-ball as far as the external canthus which was itself bound to the eye.

The left eye presented a large frozen, exactly like a pterygium, extending from the caruncle and inner corner of the eyelid, to the cornea, on which it slightly encroached, and as in the right eye, a series of minor adhesions bound the palpebral conjunctiva to the eyeball nearly as far as the external canthus, which, however, was free.

The mobility of the eye was less impaired than might have been expected, and as happily the corneas were but little involved in the adhesions, sight was unimpaired.

The conjunctivitis soon yielded to mild measures and tonics, and the patient ceased to attend.—*Ophthalmic Hospital Reports.*

ON THE EMPLOYMENT OF CARBONIC ACID AS A MEDICINAL AGENT.

By M. FORDOS.

At the end of the last century some experiments were made by medical men in England on the effects produced by gases when used as medicinal agents. A very curious experiment of Ingen-Housz, a Dutch physician, served as the starting point for these investigations. Ingen-Housz found that a finger, from which the cuticle was removed, and which was painful when exposed to the air, was still more so in oxygen gas, but that the pain ceased when the finger was placed in carbonic acid gas. It appears, however, that this fact had been previously known in France. Beddoes, in England, repeated the experiment of Ingen-Housz, and confirmed what the latter had stated. He directed attention to the local application of carbonic acid in the treatment of ulcerated surfaces.

In 1794, Ewart treated two cases of cancer in the breast with carbonic acid, and obtained good effects. Under the influence of this treatment the pain disappeared; one of the patients was soon cured, and in the other a sensible improvement took place. Notwithstanding these interesting results, it does not appear that the local application of carbonic acid has been submitted to further investigation since that time, probably on account of the difficulties experienced in the application and management of the gas.

In 1834, M. Mojon, a professor of Genoa, employed carbonic acid gas with success in the treatment of amenorrhoea, and the severe pains which, in dysmenorrhoea precede or accompany the menstrual discharge. He considered carbonic acid to be a powerful depressant, and an excellent antiphlogistic.

About the same time the use of carbonic acid, as furnished by mineral waters, began to be advocated. It was thus used at St. Alban, in France, in cases of rheumatism.

In 1830, Dr. Heidler organized the carbonic acid baths at Marienbad; and a little later, in 1840, the same was done at Nauheim.

In fact, for several years past, carbonic acid gas has been used at most of the baths in Germany and elsewhere. The gas is collected from its sources and conducted through tubes into chambers, where it is used in different ways. It is used in baths for rheumatism, sciatica, and certain cases of paralysis. It is also applied locally to the eyes and the ears. It appears to act as a stimulant to the skin and to the circulation.

In 1855, Simpson, of Edinburgh, recommended carbonic acid for the treatment of painful affections of the uterus and its vessels, such as uterin cancer, uterovaginal, neuralgia, dysury, vesical irritability, &c., and he cites numerous instances of cure.

In 1856, M. Scauzoni employed injections of carbonic acid to induce artificial *accouchement*.

At the same time M. Follin, a surgeon in the Paris hospitals, made experiments with carbonic acid gas, and published an interesting paper on its use, in which he enters largely into the history of the subject.

Subsequently, Messrs. Demarquay, Maisonneuve, Jobert de Lamballe, Broca, Gosselin, &c., have employed the *douche* and *injections* of carbonic acid in various affections, and have obtained excellent results.

Lastly, M. Ch. Bernard, physician to the hospitals of Paris, has published a series of observations on the good effects obtained from injections of carbonic acid in cancerous affections of the uterus.

All the experiments made with carbonic acid prove that this gas may be considered a powerful anæsthetic, which may be used with advantage in many cases; they also prove that it is possessed of medicinal properties, for the effects produced are not confined to the production of insensibility, but amelioration or cure of disease sometimes occur under the influence of this treatment.

The following simple form of apparatus has been constructed with the view of facilitating the application of carbonic acid in the form of injection or *douche*, and also for applying this gas or hydrogen mixed with the vapours of chloroform, ether, amylene, creosote, or other anæsthetic agents.

Description of Apparatus.—The flask (fig. 1 A) is



of thick glass, and may have a capacity of about two pints. A tin tube (fig 1 B, and fig. 2) is made to fit into the mouth of the flask. In the interior of this tube there are some fragments of marble occupying the lower space marked M, and above this some pieces of sponge, the object of which will be explained hereafter. The bottom of the tube is pierced with holes to allow the passage of the gas from the flask, and the top is closed with a cap (C), which screws on, or may be removed at pleasure. A short metallic tube, to which a flexible tube is attached, passes off laterally from near the cap (C), and this is used for directing the gas to the diseased parts.

Application of Carbonic Acid Gas.—When the apparatus is required to be used for the application of the gas, the tin tube is removed from the mouth of the flask, and 460 grains of tartaric acid in large crystals are introduced, so as to lie at the bottom of the vessel; over this are placed 580 grains of powdered bicarbonate of soda, and half a pint of water. The reaction and disengagement of gas will continue for about fifteen or twenty minutes without agitating the flask; afterwards agitation is to be resorted to from time to time when the action ceases. The two reacting agents being used in the solid state, the gas is disengaged gradually as these are dissolved by the water. The carbonic acid before entering the flexible tube, passes through the space occupied by the pieces of marble and the sponge, and is thus deprived of any particles of saline matter which may be mechanically suspended in it.

I have recommended the placing of the crystals of tartaric acid at the bottom of the vessel, under the bicarbonate of soda, as the carbonic acid being disengaged from the surface of the crystals, keeps the carbonate of soda in a state of agitation, and thus promotes its solution. A regular and abundant disengagement of gas is thus ensured. If the bicarbonate of soda be at the bottom of the vessel beneath the acid, the spontaneous disengagement of gas becomes suspended much sooner, and more frequent agitation of the vessel is rendered necessary.

Application of Carbonic Acid charged with the vapour

of *Chloroform or other Volatile Liquid*.—The sponge occupying the upper part of the tin tube is intended to be used in cases such as are here contemplated.

Hardy of Dublin has employed with success the vapour of chloroform for producing local insensibility, and for applying it he has contrived a very ingenious apparatus.

The experiments of Hardy have been repeated by Dubois, Figuier, Aran, Jules Roux, &c. In Hardy's apparatus the chloroform is conveyed in a current of air, the presence of which must be objectionable. I have thought it preferable to substitute carbonic acid for air, and that the simultaneous use of two substances possessing anæsthetic properties, chloroform and carbonic acid, would produce insensibility more promptly and surely. The experiments that have been made in this way have proved highly satisfactory.

In order to charge the carbonic acid with the vapour of chloroform, a drachm or a drachm and a half of chloroform is to be poured over the sponge contained in the tin tube.

Application of Hydrogen charged with the vapour of Chloroform.—The same apparatus may be used for applying hydrogen gas charged with anæsthetic or medicinal vapours. It is only necessary, in this case, to substitute for the tartaric acid and bicarbonate of soda some pieces of zinc and dilute sulphuric acid.—*Pharmaceutical Journal*; to the editor of which we are much indebted for the accompanying woodcut.

VARIATIONS IN COLOUR OF THE VENOUS BLOOD OF GLANDULAR ORGANS.

M. Claude Bernard, in following up his discovery of this interesting fact, has been led to study the respective influence of the cerebro-spinal and sympathetic systems of nerves, and has arrived at some very interesting conclusions, which have just been published in the *Comptes Rendus* of the French Academy of Science. He has chosen for the subject of experiment the sub-maxillary gland of the dog, on account of the intermittent nature of its secretion, which renders the variations in the colour of its venous blood very distinct. The sub-maxillary gland is supplied with nervous influence, from the cerebro-spinal system, by a nerve termed "tympanicolingual," which is apparently derived from the lingual branch of the fifth pair of nerves, its real origin being the chorda tympani of the seventh pair. From the sympathetic system the gland is supplied by branches derived principally from the superior cervical ganglion. The conclusions M. Bernard has arrived at are the following:—1. Whenever the tympanico-lingual nerve acts with energy, the venous blood of the sub-maxillary gland appears red, whereas it becomes black whenever this nervous twig does not act, or its action ceases to preponderate. 2. The venous blood of the sub-maxillary gland is black whenever the sympathetic nerve acts, and it is the darker in colour as this nerve exerts a more energetic action. The mechanical conditions of the capillary circulation of the gland, determined by these two sets of nerves, are exactly inverse. When the tympanico-lingual is excited, the rapidity of the circulation is considerably increased, when the sympathetic acts, the rapidity of the circulation diminishes. In one case it was found that during the repose of the gland, sixty-five seconds were needed to collect five cubic centimetres of blood from the vein of the gland; but when the tympanico-lingual was excited by galvanism it needed only five seconds to procure the same quantity, and if the action of the sympathetic nerve is sufficiently energetic the flow of blood from the vein may be completely stopped, again to appear when the excitement of the sympathetic ceases, and to be afresh accelerated if the tympanico-lingual is again acted upon. The reason for this is, that the tympanico-lingual nerve increases the calibre of the capillary vessels; the sym-

pathetic decreases it. The sympathetic is the constrictor, the tympanico-lingual the dilator of the bloodvessels of the gland, and thus during the action of the former the contact between the blood and the elements of the gland is prolonged, the chemical phenomena which result from the organic change have time to take place, and the venous blood becomes very black; but, on the contrary, during the action of the tympanico-lingual the course of the blood through the gland is very rapid, the modifications of venosity are differently accomplished, and the blood flows from the vein very ruddy, and preserving its arterial appearance. Owing to the influence of these two sets of nerves, the sub-maxillary gland enjoys in reality an individual circulation, which in its variations is independent of the general circulation; and this is probably true with reference to all the organs of the economy. The nervous system which animates each capillary system, each organic tissue, regulates the course of the blood with reference to the peculiar chemical or functional state of the organ. M. Bernard promises a further communication on the actual chemical modification of the blood, produced by the above physiological conditions.—*Medical Times and Gazette*.

IODATE OF POTASH.

Messrs. Demarquay and Custin consider that the action of this salt is more powerful than that of the chlorate of the same base, and that it has yielded excellent results where the chlorate of potash had failed. The dose varies from five to twenty-two grains, and it has been used in diphtheritis, mercurial and gangrenous stomatitis, &c. From M. Millon's directions, the salt may be obtained as follows:—One part of iodine and one of chlorate of potash are brought in contact with six parts of boiling water, acidulated with a few drops of nitric acid. When chlorine ceases to be given off, a concentrated solution of chloride of barium is added to the liquor. The washed iodate of barytes is then decomposed by sulphuric acid, the sulphate of barytes is separated by filtration, and the fluid is slowly evaporated. The crystals of iodic acid are then washed with distilled water, redissolved in boiling distilled water, and the solution saturated with bicarbonate of potash. A great portion of the salt is deposited in little crystals on cooling.—*Lancet*.

A CONTRIBUTION TO THE QUESTION OF FATTY DEGENERATION OF THE HEART.

Dr. H. Weber, Physician to the German Hospital in London, relates the histories of two cases of heart disease, in which, after death, the microscope shows the hearts to have undergone extensive fatty degeneration. The muscular tissue, on analysis and comparison with two analyses of healthy hearts, proved to contain less fat than the latter, as will be seen by the following numbers:—

		1. Diseased hearts:		
		Left ventricle.	Right ventricle.	Septum.
A. Sp. gr.		1.0478	1.0406	1.0478
Water		80.159 per ct.	83.279 per ct.	80.816 per ct.
Fat		2.243 "	1.914 "	3.350 "
B. Sp. gr.		1.03863 "	1.03051 "	1.03064 "
Water		81.374 per ct.	83.331 per ct.	82.789 per ct.
Fat		3.739 "	2.616 "	4.146 "
		2. Healthy hearts:		
A. Water		79.381 per ct.	83.027 per ct.	79.306 per ct.
Fat		3.630 "	8.109 "	3.815 "
B. Water		79.317 "	81.728 "	—
Fat		3.216 "	7.618 "	—

Dr. Weber refrains from drawing a positive conclusion from these cases, but suggests that possibly what we term fatty degeneration consists, not so much in the deposition of fat as in the isolation of the fat, normally a constituent of the muscular fibril, owing to the retrograde metamorphosis of the tissues.—*Archiv für Pathol. Anat.*, Band xii. Hefte 2 and 3, and *British and Foreign Med.-Chir. Review*.

UPAS ANTIAR POISON.

Professor Kölliker obtained from Dr. Christison last year, during his visit to England, some of this rare poison. He has since experimented with it, and his experiments confirm those of Sir B. Brodie's.

The result of his investigations are thus summed up:—

1. The antiar is a paralyzing poison.
2. It acts in the first instance and with great rapidity (in five to ten minutes) upon the heart and stops its action.
3. The consequences of this paralysis of the heart are the cessations of the voluntary and reflex movements in the first and second hour after the introduction of the poison.
4. The antiar paralyzes in the second place the voluntary movements.
5. In the third place it causes the loss of excitability of the great nervous trunks.
6. The heart and muscles of frogs, poisoned with urari, may be paralyzed by antiar.
7. From all this it may be deduced, that the antiar principally acts upon the muscular fibre, and causes paralysis of it.—*Medical Times and Gazette.*

ON THE AVERAGE DURATION OF LIFE OF WOMEN SUFFERING FROM CANCER OF THE BREAST.

By JAMES PAGET.

Though the author was formerly of opinion that women affected with cancer of the breast, if not operated upon, had, on an average, fifteen months longer to live than those who had been, he has now come to the opposite opinion, by a more minute statistical analysis of 39 cases.

In 75 cases where no operation was performed, the average duration of life, from the first stage of the disease, was 48 months; while in 64 cases where the patients survived the operation, it was 52 months. The longest lifetime enjoyed by one of the first class was 216 months, the shortest 7 months; the longest of the latter class was 186, the shortest 7½ months.

	Of 100 operated upon.	Of 100 not operated upon.
Died in the 1st year, ...	4.7	8.9
" 2nd " ...	6.25	22.6
" 3rd " ...	21.6	24.0
" 4th " ...	14.0	9.37
" 5th " ...	20.0	7.3
" 6th " ...	11.0	5.3
" 7th " ...	93.7	9.37
" 8th " ...	3.12	2.66
During the following years, ...	9.37	12.0

—*L'Union Médicale.*

CASE OF POPLITEAL ANEURISM CURED BY DIGITAL COMPRESSION IN TWENTY-FOUR HOURS.

A man aged fifty-two was admitted into the hospital of Louvain, (Belgium), December 14th, 1857, under the care of M. Michaux, with a popliteal aneurism, three inches in the vertical and three inches and a half in the transverse diameters. On the 15th, the patient was bled, and put on low diet; he had besides two grains of powdered digitalis, in four doses. At half-past three in the afternoon, digital compression was begun over the crural arch, and partially carried on until the next morning at four, when a little and hard tumor, the size of a nut, was observed in the aneurismal sac. At that period, total compression was begun, and at half-past eight the patient had swimmings in the head, which lasted about an hour and a half, whilst the body was bathed in perspiration. At nine o'clock, the posterior tibial artery had ceased to beat; but the aneu-

rismal tumor pulsated as before. At eleven, the man complained of formication in his feet. From eleven to one, the tumor became hard; and at four o'clock, all pulsation in it had ceased. For safety's sake, the compression was carried on until nine a.m. on the 17th; and the man was discharged quite well on the 29th. The cure had thus been completed in twenty-four hours.—*Journal de Méd. et de Chirur. Prat. and Lancet.*

ON THE EFFECT OF BELLADONNA IN ARRESTING THE SECRETION OF MILK.

Dr. Kingsford in a letter to the Editor of the *Lancet*, says, that he has for the last two years used Belladonna for the purpose of arresting the secretion of milk after delivery; in ten or twelve cases with complete success. The nurse is directed to spread the extract of Belladonna around the nipples, the width of the areola, (in the same way as it is applied round the pupil where dilatation of the pupil is desired,) and to renew the application as often as it is washed away by the milk. In from twenty to thirty hours the milk begins to flow freely, and in the course of five or six days the secretion becomes entirely arrested. In addition to the local treatment I usually prescribe one or two doses of a saline aperient, and order an unstimulating diet.

Since adopting this plan, I have never experienced any difficulty in weaning. The Belladonna, by relaxing the lactiferous ducts, induces a passive emptying of the mamma; and I would suggest that this passive action, by removing the stimulus (retained fluid) for further secretion, is the explanation of the *modus operandi*.

ON THE TYING OF THE OESOPHAGUS.—The Academy of Medicine of Paris have lately come to the conclusion of a long discussion on the above subject. The ligature of the canal in question is stated by Orfila, in his treatise on Toxicology, to have been applied upon dogs in more than fifty cases, these animals having survived when the thread was left from twenty-four to thirty-six hours. It seems that doubts arose in the minds of two professors at the Veterinary College of Alfort, near Paris—Messrs. Bouley and Raynal; experiments were made upon eight dogs, and five of these survived only a short time. Indeed, one lived only three hours, and another only one hour and three-quarters. With two of the dogs the ligature was removed in two hours, and these did not perish. These facts were brought before the Academy by Messrs. Bouley and Raynal; and that learned body appointed a committee, before whom the experiments were repeated with nearly the same results. M. Trousseau has reported upon the proceedings, and has laid down ten propositions, of which the fourth is the most important. Its substance is, that no reliance can be placed on the poisonous properties of some substances which are introduced into the body for the sake of experiment whilst the oesophagus is tied; because the committee are convinced, from the experiments made before them, that dogs may die solely in consequence of the tying of the oesophagus. Hence it is plain that the toxicological experiments which Orfila made, after putting a ligature on that canal, require revision; and that his deductions may be suspected to be erroneous.—*Lancet.*

DR. VOGEL.—A Leipzig letter says:—'During the stay of the Queen of England at Berlin, Baron de Humboldt requested her Majesty to cause fresh inquiry to be made relative to the fate of the German traveller Voegel, who went into Africa on a mission from the English government. The English consul at Tripoli has in consequence received orders to send messengers to Wadai to ascertain whether Dr. Voegel is still alive, or whether he has been put to death by order of the Sultan of Wadai, as reported. The consul was at the same time directed to transmit direct to M. de Humboldt, via Trieste, whatever news he may obtain.'

DESCRIPTION OF SOME REMAINS OF A GIGANTIC LAND-LIZARD (*Megalania prisca*, OW.) FROM AUSTRALIA. By Professor RICHARD OWEN, F.R.S.—The subject of this communication forms part of a collection of fossil remains from Australia, recently acquired by the British Museum, and demonstrates the former existence in that continent of a land-lizard considerably surpassing in bulk the largest species now known. The characters are chiefly derived from vertebrae, partially fossilized, equalling in size those of the largest existing crocodiles; they are of the "procelian" type, but present lacertian modifications, and closely agree with those in the great existing "Lace-lizard" of Australia (*Hydrosaurus giganteus*, Gray), of which individuals upwards of six feet long have been taken. A generic or sub-generic distinction is indicated by the comparatively contracted area of the neural canal, and by the inferior development of the neural spine, of the fossil vertebrae, which have belonged to an individual not less than twenty feet in length, calculated from the vertebrae and proportions of the body of the existing *Hydrosauri*. For this probably extinct lizard the name of *Megalania prisca* is proposed. The results of an extended series of comparisons of its vertebrae with those of recent and distinct Sauria are given; and the paper is illustrated by drawings of the vertebrae of *Megalania* and those of *Hydrosaurus*.—*Proceedings of Royal Society*.

DISEASES OF THE ARMY IN NEW ZEALAND.—The mortality of the troops in the colony is one-third less than in the United Kingdom, but suicides are very frequent, the ratio being five men annually out of 10,000; the inducing cause is probably home-sickness. Fevers, especially of the intermittent type, are almost unknown in New Zealand, except a few bilious febrile attacks after intemperance and exposure to the heat. Smallpox has not yet appeared in the islands. Measles were introduced in 1845, and swept off 4,000 of the aborigines, the old and the young being the severest sufferers. Several cases of scarlet fever simultaneously occurred. The troops enjoy comparative immunity from pulmonary diseases, and, although influenza swept over the colony in 1853, no soldier succumbed to the epidemic. Diseases of the liver are infrequent, compared with England, and although diseases of the digestive organs are more frequent than here, the attacks are milder. The troops continue to be singularly free from a certain disgusting class of maladies generally prevalent among soldiery. No season can be reckoned less salubrious than another in New Zealand.

SOCIAL SCIENCE ASSOCIATION.—The second annual meeting of the National Association for the Promotion of Social Science is fixed to be held at Liverpool, on the 11th October next, and five following days. Lord John Russell will preside, and the vice-presidents will be the Mayor of Liverpool and the Recorder of Liverpool. The presidents of the departments will be:—1. Jurisprudence, the Lord Chancellor of Ireland; 2. Education, Mr. W. F. Cowper, M.P.; 3. Punishment and Reformation, the Earl of Carlisle; 4. Public Health, the Earl of Shaftesbury; 5. Social Economy, Sir James Stephen, K.C.B. Every paper must be sent to the general secretary, 3, Waterloo-place, Pall Mall, London, S.W., on or before the 25th of September next. On the first page of every paper must be written the subject, the name of the author, and his address.

A BOTANICAL EXCURSION.—An excursion, almost unprecedented for its length as a botanical one, has just taken place in connexion with the Edinburgh University. Professor Balfour, with twenty-four of his pupils, left Edinburgh on the 7th ult. for Switzerland; and, after enjoying a pleasant tour combining much recreation with more or less work, the whole party safely returned to Edinburgh via London, on the 26th ult., with herb-aria well enriched with some of the rare flora peculiar to the route they had taken.

HEALTH OF LONDON DURING THE WEEK ENDING SATURDAY, AUGUST 28TH.—The deaths registered in London during the week ending on the 28th ultimo amounted to 1108, being considerably below the average number. The mortality from diseases of the zymotic order was last week 419. Small-pox was fatal in six cases. Measles caused 36 deaths; scarlatina, 81; hooping-cough, 34; and typhus and continued fever, 39. The deaths from Diarrhoea were 146, and from cholera 6. Diseases of the tubercular order were fatal in 160 instances; from the respiratory organs the deaths were 80; of the digestive organs, 45; of the urinary organs, 22.

THE LEGION OF HONOUR AND THE MEDICAL PROFESSION.—No less than twelve crosses were lately given to medical men, both in civil and military practice. Amongst the higher grades of the order we notice Messrs. Andral and Trousseau. These eminent physicians have obtained the rank of commander, which is the highest but one in the Legion of Honour.

DEATHS.

On the 9th inst., at Wilmont, Kingstown, of consumption, contracted during the Crimean War, while in the arduous and arduous discharge of his duties in the trenches, William Verner Reynolds, Esq., Surgeon Royal Navy, and Knight of the Legion of Honour, aged 81 years, deeply and deservedly regretted.

On the 18th ult., at Kimbolton-road, Bedford, D. W. Renin, Esq., aged 29, late Assistant-Surgeon in the Punjab, son of the late D. Renin, Esq., Superintending Surgeon H.E.I.C.S.

On the 30th ult., at Bath, J. W. Watson, M.D., Deputy Inspector-General of Hospitals, aged 66.

June 23rd, at Hong Kong, Andrew M'Munn, Esq., Assistant-Surgeon on board her Majesty's ship, Camilla, only brother of John M'Munn, Esq., resident physician, Lunatic Asylum, Sligo.

BOOKS RECEIVED.

Gray's Anatomy, Descriptive and Surgical.
Transactions of the County and City of Cork Medical and Surgical Society.
American Journal of Medical Science.
Montreal Medical Chronicle.

COMMUNICATIONS

Received from Dr. Abbot; Dr. Lloyd; Dr. Moore; Mr. Byrne. "A Subscriber" will see his suggestion has been adopted.

TO ADVERTISERS.

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CLINICAL OBSERVATIONS ON INJURIES AND DISEASES OF THE URINARY ORGANS,

ILLUSTRATED BY CASES.

By CHRISTOPHER FLEMING, M.D., M.R.I.A.,

Surgeon to the Richmond Hospital.

*Foreign Bodies arrested in the Urethra, in their
Progress from the Bladder.*

Many opportunities are afforded to the surgeon of witnessing this class of obstructions to the passage of the urine through the urethra. Such cases arising from calculi are by no means rare in the infant, in the child, and in advanced age; they are, perhaps, more frequent at those periods than in adult life, but even then they may occur, and however equivocal the premonitory symptoms of their existence may be, when they become fixed in the urethra, special signs arise, which, in the vast majority of instances, leave little doubt as to their presence. For obvious reasons such calculi are much more common in the male than in the female subject. I have, however, removed a small roughened calculus of lithate of ammonia from within the orifice of the urethra of a little girl, aged from two to three years, and I have removed one of oxalate of lime, in size and shape like a plum stone, from the urethra of an unmarried woman. In neither of these cases was there urinary distress of any amount. By chance each calculus was discovered, and this rather with the desire to be satisfied as to the absence of any local lesion, than from any idea of the presence of a calculus.*

* In a valuable communication of Dr. Montgomery's, in the fourth volume of the DUBLIN HOSPITAL GAZETTE, page 353, entitled "Illustrations of the Reciprocal Sympathies between the Uterus and Bladder in Woman," a case is detailed in which a remarkably shaped calculus was removed, fairly referable to the class now under consideration. The case is particularly interesting, and highly creditable to the accuracy of diagnosis of Dr. Montgomery, inasmuch as previous to his having been consulted, the opinion entertained was conclusive as to the existence of cancer of the uterus. After making a careful examination, Dr.

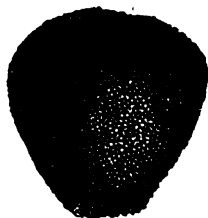
Cases similar to the following, however, are much more likely to occur, and are probably familiar to every practical surgeon.

CASE 9.

*Retention of Urine in an Infant—Congenital
Phimosis—Calculus in Orifice of Urethra.*

An infant, aged from 9 to 10 months, was brought to hospital incessantly screaming, and apparently writhing in agony. The mother stated, that for the last few days he was seized with some inward pains, which came on in paroxysms, and that neither baths, medicine, nor stuping

Montgomery says:—"I could discover no disease of the uterus, but the neck of the bladder was distended, and felt very hard; I passed a sound, which at once struck against a stone of considerable size." I was called on to remove this calculus, and I may add to the symptoms noted by Dr. Montgomery, that there was partial incontinence of urine, and that this fluid was alkaline, and loaded with mucus and phosphates. The principle of the operation required, was the combination of dilatation with incision. The instrument used was Weiss's dilator, as modified by the late Sir Philip Crampton, and without any delay or difficulty my finger reached the stone. I required no forceps, being enabled to poise out the calculus with the fore-finger of the left hand in the bladder, and that of the right in the vagina, whereby it was easily pressed out. My impression was, that the stone was in a pouch, partly urethral and partly vesical; and this opinion was confirmed by the statement of Dr. Montgomery, that "the neck of the bladder was distended, and felt very hard;" by the ease with which my finger reached the stone; and by its shape, which is accurately outlined in the annexed wood-cut. A section of the calculus presented a lithic



acid nucleus, surrounded and cased in a thick phosphatic coating.

relieved him, that his urine was not as abundant as usual, and that when it escaped, the child strained a good deal, and roared with pain, and that for the last twenty-four hours no urine had passed. He was a well-thriven child, and had never suffered before, except from some of the ordinary affections of children.

He was now perfectly unmanageable from his sufferings; and his countenance was so full and congested from efforts of straining to pass water, that there was good reason to apprehend a fit of convulsions. His little penis was perfectly rigid, and his bladder filled with urine; I passed my finger along the urethra, and in the glans felt a distinct hardness. The orifice of the prepuce was so small that the blunt end of a delicate probe with difficulty entered it, and gritted against something solid. To introduce a forceps was utterly impracticable, until I divided the prepuce, when a small calculus presented itself, fixed firmly in the urethra, and requiring no small amount of traction to remove it; a large gush of urine followed its exit, and the child was relieved. The calculus was rough, slightly oval, and about the size of a split pea. It answered to the ignition test for oxalate of lime.

CASE 10.

Retention of Urine in Child—Calculus in the Urethra.

A boy, aged from 9 to 10 years, was suddenly attacked with retention of urine, the evening previous to his application at hospital. As a gum-elastic instrument entered the bladder, a calculus was suspected to exist at the time. Five or six months previous to this the boy had some irritability of the bladder, but never before suffered from retention of urine. He was a healthy boy. The desire to pass water recurred in severe paroxysms, and at the time the bladder was tensely full of urine. I felt outside the perineum a hard oval body in front of the bulb of the urethra, which, in the efforts of the child, distinctly moved backwards towards the bladder. I grasped it between my fingers, and was surprised with what facility I was enabled to get it in front of the scrotum. Here it became so perfectly fixed, that I could not remove it, with forceps or otherwise. Ascertaining that it was a calculus, I secured it steadily, made a small incision on it, in the direction of the urethra, and extracted it with ease. I passed a gum-elastic catheter into the bladder, and fixed it there for forty-eight hours, when it was removed. No urinary extravasation or inflammation of any moment resulted, and within a week the wound had all but healed, the tract of the canal being perfect.

The calculus was irregularly oblong, rough, pointed at each extremity, and with a sulcus underneath its centre. It was about six or eight

lines in its long diameter, and three in its transverse, and consisted principally of oxalate of lime.

CASE 11.

Simulated Gonorrhœa—Partial Retention of Urine—Simple Vaginal Hydrocele of the Testicle—Remarkable Calculus in Urethra.

A stout, healthy-looking man, aged from 44 to 45 years, by occupation a dray-man, applied at hospital with the apparent symptoms of ordinary acute gonorrhœa. The penis was full and congested, the glans particularly so, and a copious purulent discharge flowed from the urethra. He passed urine with difficulty, especially for the last twenty-four hours, and yet not with the pain which the condition of the penis would indicate. He stated that he was a widower, and with children; that a fortnight back he had sexual intercourse, and that during the act of coition he felt very much pain in the penis; that the pain had continued, in some degree, from that period; that the organ remained since in a partial state of priapism; that a discharge appeared a few days after connexion; that he had an attack of gonorrhœa heretofore, and that his present symptoms were quite of a different character; and that previous to this attack he never had any urinary irritation. He had a swelling of the scrotum for some years, which, on examination, I found to be a large vaginal hydrocele of the left testicle. Whilst ascertaining the nature of this hydrocele, I felt a fulness and hardness perfectly circumscribed, immediately in front of the scrotal portion of the urethra; it was rather more prominent on the left side than on the right, was about the size of a large almond, and when being pressed, increased a good deal the urethral discharge. The tumor was not very painful to the touch, and there was a total absence of any implication with it of the surrounding areolar tissue of the scrotum. There was no constitutional disturbance of any amount. For a few days the treatment was palliative. The full condition of the penis had somewhat subsided, and micturition was tolerably free. I tapped the hydrocele, and removed fluid of the ordinary character to the amount of about ten ounces. On now examining the tumor above alluded to, a peculiar crackling sensation, somewhat coarser than that of emphysema, was communicated to the fingers; and on passing a director down the urethra, it clicked against a solid obstruction in the seat of the swelling. Beyond this the director could not reach. I now decided to cut down on the tumor, and exposed the hard substance alluded to, which turned out to be a calculus, exactly of the form and size delineated in the annexed woodcut. A full-



sized catheter was passed into the bladder, and secured; after forty-eight hours it was removed. A drop or so of urine escaped through the wound for a day or so, but within a fortnight the man left hospital well, without the intervention of any unpleasant symptom.

The appearance of the calculus in this case, its size, its shape, and its composition, are points of much interest for consideration. The roughened surface, and the peculiarity of that roughness, are so admirably and truthfully delineated by Mr. Oldham in the woodcut, that their examination with a magnifying-glass can be fully depended upon as faithful representations. They give the idea that the calculus originally consisted of distinct aggregated masses, which ultimately coalesced, and became consolidated together. When recent, they were spangled over with minute sparkling and transparent crystals, especially evident if viewed with the naked eye by the reflected rays of a bright sun, and under a glass nothing could be more beautiful, some being in tufts, others again as if involuted, and others irregularly scattered over the surface. Those crystals were oxalates of lime, and the composition of the calculus throughout was the same, intermixed with lithic acid and lithates. There was no appreciable phosphatic coating traceable, and the acid characters of the urine, accurately noted throughout the progress of the case, justified the anticipation of the absence of any, at least in excess. The shape of the calculus fairly stamps upon it a renal origin; and it would appear not unreasonable to assume that its transit to the situation from which it was excised was rather rapid.

CASE 12.

Alternating Attacks of Retention and Incontinence of Urine in Child—Calculus in Urethra.

A fine boy, aged between 3 and 4 years, had been latterly observed by his playmates, when in the midst of his amusements, suddenly to throw himself down on the ground, and grasp his penis, when his urine squirted out with great force, and apparently with great pain. These attacks occurred at irregular and sometimes at very lengthened intervals, and were occasionally so transient and so momentary that the boy quickly resumed his play. The symptoms became more frequent and more urgent, and latterly ended in temporary retention or incontinence of urine. After ordinary means had failed to relieve him in one of these attacks of retention of urine, he was brought to the Netterville Institution. The bladder was fully distended with urine, and nothing abnormal was discernible along the tract of the urethra. I transferred him to the hospital, and introducing a silver catheter, distinctly felt the sharp clink of a calculus, when the bladder had been nearly emptied, and again when withdrawing the instru-

ment. On no subsequent occasion could I satisfactorily feel the stone, even with a sound, neither could I with Civiale's child's lithotrite, yet the symptoms above noted again and again recurred, and in the absence of any other ostensible cause to produce them I felt convinced that a calculus was in the bladder. I now accidentally remarked that there was a subsidence of the more intense sufferings during the presence of incontinence of urine, *not the effect of retention*, and during it I determined to test the urethra. It struck me that then the calculus might occasionally pass into the membranous or prostatic portion, and become more or less fixed there, changing its locality according to the position of the child, or the condition of the bladder. I had for some time previously devised the forceps, outlined in the annexed woodcut, with the special object of catching small vesical calculi in the neck of the bladder, or in the commencement of the urethra in children. I selected it in the present instance, and placing the child before me in the semi-recumbent position, slowly introduced it, and felt the stone in or about the membranous portion of the urethra. I now gently withdrew the instrument a little, and cautiously opening the blades, kept them steadily fixed in my left hand, when pressing the fore-finger of the right within



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the anus, I approximated it to the forceps, and fixing its tang with the thumb-screw, I caught the stone and withdrew it, as in the wood-cut. There was some slight bleeding from the urethra, but it quickly subsided. Suitable treatment was directed, when next day a train of symptoms was reported, which gave me much alarm. That there should have been some slight tenderness of the urethra, and pain in micturition, and some slight bleeding, I expected, but a very formidable looking swelling of the scrotum and penis, was now superadded, which had increased to so great an extent within twenty-four hours, that the former was of a vivid red colour, tense and shining, and painful to the touch. The perineum was also somewhat full. There was yet not much of constitutional disturbance, and the urine escaped in a good stream, and in fair quantity. By repeated tepid ablutions, by the use of diluted drinks, farinaceous diet, and some mild cooling medicines, all swelling subsided, and perfect cure rapidly advanced after the lapse of a week.

Chance, it may be said, directed the calculus into the forceps, in the above case, and unquestionably a chance thought suggested the trial of the instrument. But is not a practical hint given to the surgeon, as to the means he should adopt in cases of this kind, where an accurate differential diagnosis can be established as to the size and site of a calculus in the commencement of the urethra of the child? The direction and shape of the bladder at that period of life, and the natural conformation of its neck; the great capability for dilatation of the adjoining portion of the urethra, and the very slight development of the prostate gland; all tend to facilitate successful manipulations there, to the exclusion of any capital operation, which is so highly objectionable under the circumstances I allude to. The length and calibre of the instrument I recommend for this purpose is adapted to the urethra of most children about three or four years of age; and its introduction into the bladder is an operation of the veriest simplicity; its shape, moreover, suits it to the special offices it has to perform. All surgeons conversant with the several appliances in urinary surgery will recognize it to be no more than that modification of Hunter's urethral forceps whereby the tang and blades are slightly



curved, and rendered somewhat conical at the end, in order to facilitate the object in contemplation. Indeed, with the tang and forceps straight, which can, when required, be substituted for the curved, this instrument appears to me to be better suited for the removal of urethral calculi elsewhere, than the several varieties of the French urethral forceps which I have met with, and much better than the articulated scoop of Bonnet. This latter, however applicable it may be in certain cases to the adult urethra, is not free from great risk of laceration of it in the child. An additional advantage derived by making the forceps curved, as I suggest, is, that it may answer as a sort of staff, to cut down on any part of the urethral tract, and so excise a calculus, should its size or other contingency prevent it from being fully withdrawn from the urethra.* Moreover the tang working within a canula of fixed calibre, and the separation of the forceps blades being placed in a lateral direction, tend to correct many difficulties which are often encountered at the orifice of the urethra, when the ordinary forceps is used, and within the urethra, when the blades of the forceps or lithotrite are placed in opposite directions. A urethral lithotrite, as usually constructed, must, in most instances, fail utterly in catching a calculus, and in all must produce unwarrantable injury to the urethra.

I have selected the above cases as illustrative of the several sources from which foreign bodies intercepting the current of the urine in the urethra may arise. The minuteness of the details of those cases, and the observations interspersed throughout, leave little room for further comment, as regards symptoms, diagnosis, or treatment. Specialities in each case will, undoubtedly, be attended with peculiarities of symptoms, and will require proportionably modified treatment. Thus, the effects of the introduction of foreign bodies into the urethra from without, will materially differ, not alone as regards the nature of that foreign body, the extent to which it may have entered the canal, and its duration there, but also much according to the healthy or unhealthy condition of the parts engaged. The same remark is applicable to the second class, or the truly urethral concretions, as also to the third, embracing renal and vesical calculi. That there is a very great similarity in the rational signs attendant on all cases of this kind, must be admitted, but notwithstanding, distinctive characters are often present, attention to which will greatly assist the surgeon in the selection of appropriate treatment. Case No. 3 is of much interest, as well from its complicated character as from the treatment adopted at the different stages of its progress. It is to be much regretted that the subject of this case was so unfavourable

* This instrument was manufactured by Messrs. Thompson & O'Neill, Henry-street.

for the success of any operative procedure. The satisfactory issue, however, of Allarton's operation is worth noting. No perineum, no urethra could be more unfavourably circumstanced, and yet the steps of the operation were carried through without any untoward interruption, owing, I am disposed to believe, to the dilatation of the portion of the urethra which was the seat of the operation, as I am rather sceptical regarding the capability of even the most accomplished anatomist to strike the healthy membranous portion of the urethra from the perineum so very accurately as it is asserted, and not to implicate the bulb more or less. Even in the dead subject it is not so very feasible. I am not aware that Allarton's operation has been performed in this country in any previous instance, I am not by any means satisfied on many points respecting its details; and I acknowledge I cannot understand how a patient, after its performance, "usually sits up and moves about the following day;" nay more, has been "up and out the day after the operation, and walking out on the third day." The operation, however, appears to me worthy of consideration and of trial, in cases where foreign bodies are impacted in the distant portions of the urethra, and, perhaps, also in the neck of the bladder, or in cases where urethral concretions, or small prostatic or vesical calculi, occupy the same situation, and are not removable by simpler means.

The second class of those obstructions in the urethra often escapes notice. Urethral concretions are not unfrequent attendants on diseased urethrae, strictured or otherwise; they complicate urethral fistulae, and certain prostatic diseases. Such concretions may escape detection from the fact, that metallic instruments are not so much the fashion now as heretofore in the treatment of urinary diseases; and with such class of instruments alone can we satisfactorily ascertain the presence of such calculi. The elastic bougie capped with silver is an excellent medium for the purpose, and also the gum-elastic catheter attached to Wakley's excellent stricture apparatus. In all cases of protracted stricture, whether accompanied with fistula or not, it is well to examine the urethra, and the tract of the fistula if present, with such object; and this is specially important if the morbid condition of the urine, usually attendant on such cases, does not keep pace with the improvement in the local symptoms. Case No. 7 is a good illustration of this class. Even when the stricture yielded so far as to admit No. 6 and No. 8 catheters, the morbid condition of the urine persisted.

From the peculiarly friable character of those concretions, it is intelligible, that they may, by possibility, be crushed by forcible compression, as would appear from the details given in Case No. 6, or with a suitable lithotrite. I cannot, however, speak practically on the matter. I do find, when they are identified with stricture, that

in proportion as it yields to treatment, and that appropriate general remedies are directed, vast improvement can be calculated upon, without any operative interference, and especially in the urinary secretion, the healthy state of which must influence the phosphatic deposits present, and prevent their re-formation, just as we occasionally see, after the operation of lithotomy, the wound as if frosted over with unhealthy phosphatic coatings, ultimately become perfectly healthy and freed from them. I have not had under my immediate care cases where those concretions reached a large size, and hence am not justified in noting them here, although I have witnessed some cases very remarkable indeed. The sensible signs of those urethral concretions are often manifest enough; but I need not dwell on the difficulties which present themselves in a case like that of No. 7. In such case accurate diagnosis is of the greatest importance, to decide the surgeon as to the suitable operation to perform, if any such be required. The size of the stone—whether it is simply urethral, or whether it is urethro-vesical—or again whether a combination of urethral and vesical existing separately, present difficulties which cannot be exaggerated; they are often insurmountable. What cautious surgeon will venture to decide by the sound or staff alone, whether or not a stone also exists in a bladder, where the urethra contains one stone or many fixed in it?

The last class of these obstructions affords a very interesting field for study, and they are by far the most frequent in occurrence. The cases I have detailed may be commonplace, but it is surprising what carelessness exists respecting the detection even of such. I have witnessed very distressing results from this neglect, especially in children. The truth is, urinary calculi, both renal and vesical, are much more common in this country than is generally admitted, and especially in children, if we take into account those cases which escape with little or no surgical interference. I feel satisfied that many of the so-called abdominal affections, at the early periods of life, are attributable to this cause, and that often calculi escape without any suspicion of their presence. The remarks I have elsewhere made respecting the causes of "Irritable Bladder" in children, rather tend to confirm this statement, inasmuch as those amorphous and crystalline deposits, which are by no means then unusual, almost always enter into the composition of their calculi.*

As a distinct urinary affection retention of urine is rare in the child, and so is incontinence of urine; and both one and the other are more frequently traceable to this class of obstruction than

* Notes on the Urinary Diseases and Morbid Condition of the Urine in Children. By Christopher Fleming, M.D., M.R.I.A., Surgeon to the Richmond Hospital. &c. &c.—*Dublin Quarterly Journal of Medical Science*, vol. xv.

to any other cause. In every such case, the surgeon will err on the safe side, who never omits, in the very first instance, to examine carefully the tract of the urethra *externally*, in order to ascertain whether a calculus may or may not exist along that canal. This should be done before he attempts to introduce a catheter; and then he must exercise the greatest circumspection, not alone as regards the detection of a calculus, but also as to ascertaining the special site which it may occupy. I have some of these calculi, not larger than a hemp-seed, passed in infancy and in childhood, after a temporary attack of retention of urine, without the necessity of any surgical treatment. It is by no means unusual to find incontinence of urine produced by the same cause. In every such examination a silver catheter is to be preferred. I have witnessed the greatest bungling from the use of the gum-elastic; and I need not add, that any test by it is often fallacious.

In the adult, the difficulty of diagnosis is not so great as in the child, and yet even here, caution is required. No. 11 case is as remarkable as it is interesting. That so large and so irregularly-shaped a calculus should have passed from the kidney, without producing any symptom sufficiently distressing to attract attention, is somewhat strange; pathology, however, teaches us how very deceptive all symptoms of urinary diseases are: renal diseases will simulate vesical, and *vice versa*; and urethral disease is often similarly circumstanced. I have renal calculi in my possession which were accidentally discovered after death, and where not a sign of their presence was manifested during life, the patients dying from diseases altogether apart from urinary; and I have numerous vesical calculi which passed through the urethra with very little interruption to the urine, and none worth noting in the bladder, until they reached the urethra. The capacity of the urethra, and its tolerance to permit their free transit, is often surprising. Commemorative symptoms, in all these cases, are most important to attend to.

The difficulties attendant on the differential diagnosis of many of these cases are often as perplexing in the adult as in the child; the principles of treatment, however, must be influenced by contingent circumstances. In the child, no matter in what portion of the tract of the urethra the calculus is arrested, the sooner it is removed the better. I have, in not a few cases, turned it out from the fossa navicularis, which is no unusual situation to find it, and I have never experienced any annoyance from freeing the orifice of the urethra for the purpose, if such was required. As in case No. 10, I have pressed a calculus forwards in front of the scrotum, when situated behind it, and I have excised it without any bad result, always adopting the provision of a catheter in the bladder for some hours afterwards. I have also removed a calculus nearly as large as a nutmeg, situated in

front of the bulb in a child, through the perineum, without any subsequent mischief of extravasation or fistula.

It yet cannot be concealed, that most unmanageable, if not incurable fistulæ, are too often the result of such operations. I am inclined to think that this arises from allowing the calculus to remain until a condition of urethra is established, which prevents healthy reparation by the adhesive process, and that such disposition is at once corrected by *prompt* removal. Apart from this consideration, I would say that, particularly in the child, when a calculus occupies the perineal portion of the urethra, there is a very great disposition to its retrograding towards or into the bladder, in the paroxysms of urinary distress which almost necessarily attend it, and that such risk should be avoided. Under the influence of chloroform I have seen, during one of these paroxysms, a calculus suddenly recoil to the bladder, and as suddenly dart forward to its former locality. This is a contingency to which no patient should be subjected. In the distant portions of the urethra difficulties will arise as to the special site of a calculus, particularly if that calculus has been located there for a lengthened period. The sensible, and indeed the rational signs of such are so conclusive, that few surgeons of any practical tact can be deceived. An excellent case of this kind has been recorded by Mr. Wilmot, as having been operated upon by Mr. Cusack; he has given a wood-cut in the last volume of the DUBLIN HOSPITAL GAZETTE, of the size and shape of the calculus. The appearances of a section of it, which I here annex, proves it to have been originally a small calculus of the ordinary composition in childhood, which had been arrested in its passage from the bladder, in the membranous or prostatic portion of the urethra, and which had reached its large bulk by successive phosphatic depositions.



What years of misery would not this child have been saved had an accurate and early diagnosis been formed!

The subject of priapism, which formed so prominent a symptom in many of the above cases, and that of the condition of the scrotum in cases No. 8 and No. 11, shall be specially considered in connexion with those obstructions to the tract of the urethra, which are the result of violence applied to it.

CONTRIBUTIONS TO PÆDIATRIC SCIENCE.

By WILLIAM MOORE, M.B. TRIN. COLL. DUB.
M.B.I.A.,

Physician to the Hospital for Diseases of Children,
&c. &c.

Infantile Vaginitis—Phthisis Pulmonalis—General Infantile Mortality—Mortality in Hospitals for Sick Children.

Infantile Vaginitis has been so lucidly described by Sir Astley Cooper, in his lectures on the principles and practice of surgery, nearly fifty years ago, and by other writers since, that in a pathological point of view its interest is somewhat blunted; but socially it is still a disease exciting, in many instances, grave alarms, which the confidence of the physician alone can allay. In connection with this preface I subjoin the following cases:—

The first was that of a child aged about three and a half years, whom I visited some months ago. On arriving at the house, the mother of the child met me in the hall, evidently in a great state of excitement, and at once mentioned her horror at having discovered a discharge that morning from the private parts of her child. She then launched forth against the nurse, who had only been a few days in her employment, and whom she suspected of having contaminated her daughter. On further inquiry, I learned that her children had, about a fortnight before, arrived in town from bracing country air, and for the last few days had been suffering from brisk diarrhoea. On examination I found a profuse purulent discharge, with redness of the labia and external parts. The child's bowels had been acted on at least a dozen times in the previous twenty-four hours, the dejections being greenish and curdy. I at once satisfied the mother that the discharge depended on a vitiated state of the child's secretions in general, and that it was in no wise due to contact with the nurse. The treatment employed was small doses of grey powder, rhubarb, and aromatic powder; afterwards the addition of compound powder of chalk with opium. The vaginal discharge was repeatedly washed off during the day and night with tepid milk and water, after which a lotion of alum and rose-water was used; the little patient kept on rice-milk or arrowroot and milk, and had soda-water and milk (equal parts) to drink. Under this treatment the diarrhoea and vaginitis speedily disappeared.

The next case occurred in the younger sister of this girl, aged two years. I need not detail the train of symptoms, which were precisely the same as those above mentioned, and which were successfully treated on the same plan.

In a medico-legal point of view, it is of the last importance that the character of this discharge should be thoroughly understood, as in the case of

suspicion being attached to a male, ignorance of its nature might entail the most lamentable consequences. Sir Astley Cooper says—"A surgeon who is ignorant of the nature of this discharge I am now speaking about, gives his evidence, and the man suffers for that which he never committed."

The next case, one of pulmonary phthisis, which occurred in a girl aged 13 years, possesses some features of interest, more particularly as tending to prove, if further proof were wanting, the caution to be observed in arriving at a decided prognosis as to the duration of disease in young persons, even where, as in this instance, one might naturally have concluded that the thread of life was almost clipped through.

Mary F———, aged 13 years, was brought to the Institution for Diseases of Children, 28th December, 1867. She was emaciated; had a racking cough, and spat blood on several occasions. On examining her chest I found a bubbling crepitus extending over the entire top of the left lung anteriorly, which was also well marked behind, and extended about midway down the scapular region in a diminished crackle. The physical signs of the right lung were healthy, if we except the presence of puerile respiration. The patient had complete loss of appetite, was exhausted by night-sweats and occasional diarrhoea; her teeth and lips were covered with sordes. Such was the unfavourable condition of this girl, when she was first carried to the Institution. I prescribed an expectorant mixture, containing squill and camphorated tincture of opium. She was to take two and a half grains of pepsin at breakfast and dinner, in milk or beef-tea; a teaspoonful of cod-liver oil at bed-time, if her stomach would bear it, and every morning on awaking a cup of warm milk with a teaspoonful of brandy. Under this treatment the patient may have been said to "hold her own" till the end of January, when her parents told me they were unable to procure the necessary regimen. Accordingly I asked Dr. Banks to take her into the Richmond Hospital, under his care, with which he at once kindly complied, but where she only remained a few days, as she was so wedded to her parents.

Again this patient was brought to me, much in the state I have before described. Her father and mother now stated that they were prepared to carry out the prescribed treatment at all costs. Accordingly I directed the brandy and milk to be resumed, with pepsin and cod-liver oil as before; and as the gargouillement was still as distinct as on my first examination, I applied acetum cantharides under the left clavicle. This treatment was steadily persevered in for months, the patient paying me periodic visits up till the present. The report from my note-book, September the 6th, is as follows:—The patient has grown fat and plump; can run quickly up stairs; sleeps well; appetite improved, but not so good as could be wished;

has still a short cough, but little expectoration, and has not spat blood for six months. On examination with the stethoscope, I find a marked improvement in the state of the left lung, but still a crackle can be heard over its apex, in the angle between the outer end of clavicle and scapula, in extent about the size of a shilling. This crepitus can be heard in the corresponding part of the lung posteriorly over the ridge of the scapula. The lower portion of the lung is clear; the right lung healthy. This girl is at present residing in the neighbourhood of Rathmines, where I have enjoined her to remain as long as convenient; she is taking a cup of warm milk every morning, two and a-half grains of pepsin at breakfast and dinner, and a dessert-spoonful of cod-liver oil at bed-time. Her diet consists of eggs and plain animal food, with a glass of Bass's ale at dinner.

What may be the sequel of this deeply interesting case, it is difficult to foresee; but taking into account the youth of the patient, coupled with the decided general and local amelioration, under certain conditions my prognosis would be favourable. If this girl has the benefit of a suitable winter climate, with the due hygienic requirements, I think the cavity, which has gradually narrowed from occupying the major part of the top of the left lung to the size of a shilling, might eventually become obliterated. On the other hand, should the patient be brought back to winter in an ill-ventilated, badly-sewered locality, in this city, exposed to cold, and perhaps the accession of zymotic disease, of course we might naturally look for a relapse and fatal termination. Under any circumstances I fully concur with Dr. West, that in the present condition of our knowledge, it is not possible to state with certainty the sign which, during the patient's life-time, would warrant the expectation that the disease will run a tardy course, or the contrary.

And here a brief allusion to Mr. Simon's recent report on infantile mortality may not be out of place. That cold, and abrupt changes of temperature, favour pulmonary and tracheal diseases, and that improper food brings on diarrhoea, all must admit. But why, asks Mr. Simon, should the resulting death-rates vary, as they do, in different districts of the country? Thus, in three of the healthiest rural districts of England the death-rate from these diseases is 925; in the unhealthiest district it is 6,895! Why are these non-infectious infantile diseases seven times as fatal in one district as another? He answers these queries by considering the following diseases separately. 1st. From 1848 to 1856, 330,881 children, or 37,000 annually, fell victims to nervous disorders. The average death-rate is $2\frac{1}{2}$ times as high throughout the north-western counties as throughout the eastern, south-eastern, and south-midland districts. The general cause has been traced to the old evil—viz., a foul and vitiated state of the air supplied for respiration. 2ndly. In the year 1856, 28,763

infants died from the effects of non-tubercular diseases of the respiratory organs—as bronchitis, pneumonia, and croup. It appears that these diseases, in great measure, are attributable to the inhalation of impure air, the children in the rural districts being comparatively exempt, whilst those *coddled* in hot rooms, as in towns, fall victims to such poisonous indoor influences. 3rdly. 11,000 infants under 5 years of age are annually cut off by diarrhoea and dysentery, the main causes being bad food, ill-ventilated dwellings, and deficient sewerage. Mr. Simon considers the gross mortality of young children due to the conjoint action of the three heads of disease above mentioned, and to the varying prevalence of two local causes:—1st, To differences of degree in common sanitary defects of residence; 2ndly, to occupational differences amongst the inhabitants; there being certain large towns where the homes are badly kept, and the children but little looked after.

Before concluding these brief remarks, it might not be uninteresting to review the relative mortalities in some of the principal hospitals for sick children, and to compare them with the general mortalities of the countries and cities in which they are contained.

Seventeen hospitals for children's diseases specially, were successfully established in Europe previous to the foundation of a similar establishment in this country. Recently the special hospitals for sick children in London and Manchester have removed this blot from our national escutcheon. In the sixth and last annual Report of the Hospital for Sick Children, Ormond-street, London, we find the in-patients under 10 years of age numbered 325, and the deaths 48. The mortality, therefore, has been about 14 per cent. When we take into account that, in London, about 35 per cent. perish before the attainment of the tenth year, I think the salutary influence of the Ormond-street Hospital is a fair subject for congratulation and thankfulness.

In the Manchester Hospital for Sick Children,* out of 530 children treated as in-patients, only 34 deaths occurred, or about 13 per cent. In this city the computation is, that 50 per cent. of children perish before they reach the age of 5 years.

In Paris, the mortality in the large hospital for sick children has been about $19\frac{1}{2}$ per cent. for an average of years; while, over all France, from 1816 till 1831, the average mortality has been about 28 per cent. of children under 5 years of age.

In Berlin,† for 40 years previous to 1822, the mortality of children under 1 year was 52 per cent. In the Hospital for Sick Children the mortality has varied, owing to epidemic visitations, from 12 to 26 per cent.

* Report of Clinical Hospital for Diseases of Children, Manchester, 1856,

† Reports of Hospitals for Sick Children, *Edinburgh Medical Journal*, March, 1858,

In Austria it is calculated that 37 per cent. of children die within the first four years, and that the children's mortality, in Vienna, reaches so high as 60 per cent. annually. In this capital the average mortality in the children's hospital has been as high as $24\frac{1}{2}$ per cent.; but even though high, it is more than 50 per cent. under the general city mortality.

At Prague the mortality of the children's hospital is 16, at Frankfort 17, and at Stockholm 18 per cent. The value of special hospitals for sick children is thus easily estimated; and the above statistics are of vital importance, as tending to prove the salutary influence such establishments exert, by diminishing the mortalities within their own spheres, compared with the respective general mortalities, on an average, in round numbers, about 30 per cent.

NOTES OF CASES OF CEREBRAL RHEUMATISM.

By ROBERT MURNEY, M.D., L.R.C.S.I.

The rarity of Cerebritis as a complication of rheumatism induces me to publish the following notes of three cases of this affection, which I have lately observed.

They were all men above the average size, about 16 stone weight; aged 32 and 35 years; two of them were temperate and well-conducted, the third was not so; none of them ever had any rheumatic affection before, or any disease worth recording; all were in excellent health when attacked with the rheumatism, which each attributed to exposure to cold. The large joints of the upper and lower extremities in all were affected; they were swollen, red, and exceedingly painful; the skin was hot, and covered with profuse perspiration; each had a partial erythematous eruption, confined to the abdomen and thighs; the tongue was pale and white; and they had all insatiable thirst. The pulse ranged from 130 to 140; the urine was diminished in quantity, but contained no deposit. About the twelfth day of the rheumatic fever the pericardium in each case became affected, and the attack was immediately treated by relays of leeches in large quantities. Two of these patients had aphonia, and the third dysphagia. The former came on in each case on the first day of the pericarditis, and the dysphagia on the second day of this complication. These symptoms, of course, excited great alarm for the safety of the patients. They were clearly owing to the pericarditis, as observed by Testa, Stokes, and others; there was no laryngitis or any other symptom referable to the respiratory system; the anatomical connections which the heart enjoys with the larynx and oesophagus through the eighth pair of nerves, account, no doubt, for this phenomenon, which may arise either from irritation in the early stage or from

pressure in the later stages of pericardial inflammation.

The first of these patients I was unable to salivate, though he continued to take calomel and opium, combined with antimonial powder, and he used mercurial frictions; the blistered surface of the heart was dressed with mercurial ointment also. Dr. O'Reilly saw him in consultation with me on the fifth day of the pericarditis, and expressed his approval of the treatment in every particular; he even gave a favourable prognosis; and I also had sanguine hopes of his recovery; but within two hours after our visit the following was his state:—the pulse was small, frequent, and intermitting, 120 in a minute; the heart was acting violently, but no endo- or exocardial murmur was audible; his pupils were dilated; head intensely hot; the carotids forcibly beating; face suffused with redness; conjunctiva vascular; mouth shut; he was grinding his teeth; refused medicines and drink; would not speak or answer any questions; he lay on his back, supporting or resting the body on the occiput and heels; it was quite rigid, and arched, the convexity anterior; he was constantly moving and working himself down towards the foot of the bed.

His head was shaved, leeches, ice-bags applied to it. I opened the temporal arteries, applied a blister to the occiput; and continued the mercurial frictions. I saw him late in the same evening, he was much improved; he answered questions reluctantly; took his drinks and medicines; he slept for four hours; he awoke most frantic out of his sleep; he got up, left the bed, walked about the room; would not speak or take anything; he was grinding his teeth; his eyes had a most frightful appearance. We got him into bed with great difficulty, and were obliged to hold him there for some time; he gradually became more calm; his breathing stertorous and laboured; he fell into a semi-comatose state, and died in the evening of that day. No *post-mortem* examination was allowed.

The second of these cases was a man 35 years of age; he was married, but had no family; he was not so regular in his habits of living as the other two. The articular rheumatism was most obstinate; it visited joint after joint in succession—never left; it always had possession of some joint. As soon as the heart was attacked we had no difficulty in salivating him. If the rheumatism subsided one or two days it was sure to return with increased virulence the next day; so it was in one of these intervals of repose that the brain became engaged; he was under the influence of mercury at the time. About the eighth day of the pericarditis he felt a sudden pain in his head; after this he never spoke. He soon became most unmanageable and quite furious; he lasted in this state for sixteen hours; he worked for two or three hours before his death, like a patient in a severe fit of epilepsy. I was denied a *post-mortem* examination in this also.

The third case lasted seventeen days. The rheumatic affection continued very severe up to the close; pulse never came down more than ten or twelve beats in a minute; in the evening it always rose again up to 130 or more. The only symptom of cardiac affection he had was pain, and this was not severe. There was no friction or endo-cardial murmur of any kind; no dulness or any evidence of effusion. At every four or five beats of the heart there was a peculiar metallic ring, but this, I apprehend, was produced by the distended stomach and bowels, both of which were quite tympanitic and well calculated to cause the phenomenon in question.

Dr. Corrigan saw this case in consultation with me. I mentioned to him my apprehension about the brain, having the experience before me of the two cases that I have just described; his reply was that he was often surprised that the membranes of the brain were not more frequently affected, being fibro-serous like those of the heart.

This poor fellow died of symptoms identical to those of the last patient. I could not procure a *post-mortem* examination in this case either, which disappointed me very much. This patient was using mercury in every way before he got the attack in the brain. I treated each with grain doses of opium every second hour up to the attack of the pericarditis; at this period I combined it with calomel, and used mercurial frictions also, notwithstanding the head symptoms set in. I often regretted I did not bleed these patients at the first attack of the rheumatism. We have yet to learn a great deal about this affection. I am of the opinion that opium should not be used indiscriminately in every case, and that it should not be given every one or two hours as the case may be—in this way it loses its effects completely—but in large doses, thrice a day. We are not so much in want of new remedies for treating diseases as discriminative canons for those we possess.

Reviews.

Handbook of the Science and Practice of Medicine.

By WM. AIKEN, M.D., late Pathologist to the British Medical Hospital at Scutari. London and Glasgow, 1858.—pp. 756.

The title of this work, we confess, rather prejudiced us against it. We dislike Handbooks excessively, in which condensation is carried to the utmost possible extreme, and where the views and opinions of different authors are appropriated without acknowledgment, and mixed up without judgment. Such, however, is not the nature of the work before us; the best medical literature of the day has been laid freely under contribution, and the authors fully acknowledged; so that, if the work does not consist of the lengthened expe-

rience of one veteran practitioner, there is a guarantee, as the author himself says, that the matter communicated is at least orthodox. The adoption of the nosology of Dr. Farr, the eminent statist, is a novel feature in the work. As this classification forms the basis of the Registrar-General's Reports, and as the subject of nosology is attracting a good deal of attention generally, we shall state its prominent features.

Diseases are comprised under four great classes:

- Class 1. Zymotic Diseases (Zymotici).
- „ 2. Constitutional (Cachectici).
- „ 3. Local (Monorganici).
- „ 4. Developmental (Metamorphici).

Class 1.—*Zymotic Diseases* include, (1) all those of miasmatic origin; all the fevers, exanthemata, &c.; (2), the enthetic (implanted diseases),—as syphilis, glanders, hydrophobia; (3), the dietic—as scurvy, purpura, rickets, &c.; and (4), all parasitic diseases.

Class 2.—*Cachectic Diseases* include two orders:—The diathetic—gout, cancer, &c.; and (2), the tubercular.

Class 3.—The *Local Diseases*, are those which, being usually sporadic, affect particular orders or systems, and include, therefore, as many orders as there are important organs in the body.

The last order, *Developmental Diseases*, include chiefly the special diseases of growth and reproduction.

The preceding classification, we are told, “is not given as a perfect system, but as a convenient grouping of diseases;” we shall abstain, therefore, from minutely criticizing it; but, like all other classifications, we find this fault on the very surface—that diseases are grouped together which have no natural affinity, and diseases of similar natures are separated. Diabetes is not a disease of the kidney, nor does ascites necessarily belong to the enteric. Could we imagine that whitlow and psoriasis, glossitis and pyrosis, cyanosis and teething, neuroma and delirium tremens, would be found in pairs in the same orders; and that gout and rheumatism should be widely separated? Yet this is what nosology brings us to; and we must therefore disagree in toto with the author, that by even the most improved classification—and such we must believe the Registrar-General's to be—the student will have “a table of reference to aid him in naming diseases, and a system to guide him in acquiring a knowledge of his profession.” The clinical study of disease, and clinical teaching, are far better aids to knowledge. In medicine, as in botany, it is found best, for practical purposes, to adopt the “natural system;” and we feel certain that practical medicine will never submit to be fettered by strict nosological distinctions. But in condemning the classification we find no fault with Dr. Aiken. He has produced a work which contains an immense amount of information, including everything important in scientific medicine that has been recently contributed. There is great ability shown

throughout in the selection of materials, and much valuable information will be derived from its perusal. It is a work we would recommend to medical officers in the army and navy, whose library must necessarily be small and select.

The last part contains a very interesting chapter on Medical Geography, or the Geographical Distribution of Disease, illustrated by an excellent map.

Selections from British & Foreign Journals.

ON THE LIGATURE OF THE ŒSOPHAGUS IN ANIMALS, IN TOXICOLOGICAL RESEARCHES.

A discussion has lately taken place among the members of the French Academy of Medicine, on the ligature of the œsophagus in dogs, as a means of preventing vomiting after the ingestion of chemical substances, and as a measure consequently indispensable to the study of the physiological action of these substances upon animals.

It is a well-known fact, that the principal conquests of toxicology have been achieved by this kind of experimentation, and that the greater part of Orfila's experiments were made under the protection of the previous operation in question. But how did the illustrious Professor, whose labours have for so many years exercised universal influence over forensic medicine, perform the ligature of the œsophagus? It is a secret which would appear to be totally lost, so different would the results he arrived at seem to be from those spoken of by our present experimentalists.

Unhappily, Orfila has not, in his works, sufficiently explained his *modus operandi*, and he has barely escaped paying the penalty of the omission with his glory. What is known is, that the eminent Professor made a *puncture in the œsophagus*, for the purpose of introducing into the stomach the substance, the action of which he desired to study, and that he then tied this duct below the artificial aperture, with a *tolerably large and moderately tight ligature*. We likewise read the following, on the effects of this operation, in his *Treatise on Toxicology*, p. 46:—

"It is proved by fifty experiments, several of which have been publicly made before a numerous audience, and in presence of several members of the Academy of Medicine, that if the œsophagus, after having been isolated, is tied, and if the ligature is preserved for twenty-four or thirty-six hours, the animals thus operated on merely feel slight depression and a moderate amount of feverishness. As soon as the ligature is removed, the dogs drink, soon begin to eat, and are perfectly restored to health."

Whether, however, dogs die, or not, from the wound made in the œsophagus, after the first eight-and-forty hours, is unimportant; the end was attained, and there was no reason for investigating

the effects of a permanent ligature, which is useless in toxicology. What Orfila sought by a ligature of the œsophagus he obtained—the possession of a preservative means by which chemical substances might be retained in the stomach without itself occasioning symptoms which might be confounded with those resulting from the introduction of these substances, or capable of causing poisonous properties to be ascribed to a harmless substance.

Now, after an affirmation so positive as the one we have just quoted, and which the learned world had generally accepted as Gospel truth, the surprise of the Academy will be readily imagined when, two years since, two Professors of the Veterinary School of Alfort, Messrs. Bouley and Reynal, came forward with assertions diametrically opposed to Orfila's. Messrs. Bouley and Reynal sought to prove that the deligation of the œsophagus, far from being perfectly harmless, is generally attended with serious consequences; that it is almost invariably mortal, when the ligature remains permanently applied, since it is capable of causing death in a short time, by the sole agency of the disturbances it occasions in the system, and so much the more rapidly that the substances ingested more powerfully excite vomiting; that, in short, it is almost always followed, a short time after its application, by grave symptoms, which must be taken into consideration in the appreciation of the phenomena observed when the effects of substances ingested into the stomach are investigated.

The importance of a communication which shook all Orfila's toxicological edifice did not admit of indifference, and the Academy appointed a committee to resume and control the experiments of the Professors of Alfort, and the report of this committee was read by Dr. Troussseau on the 29th July last.

In this remarkable production, Dr. Troussseau successively examined the two principal questions of fact and of interpretation. It was first necessary to ascertain whether the ligature of the œsophagus is simple and harmless, as Orfila declared it to be, or whether it is attended with serious disturbance, as Messrs. Bouley and Reynal assert. Further experiments were made at the Hospital of Val-de-Grace. Messrs. Bouley and Reynal performed anew the ligature of the œsophagus on five dogs, carefully avoiding to comprise the nervous filaments in the loops. Notwithstanding this precaution, extreme agitation, retchings, and nervous disturbance, were observed in the animals, and these symptoms singularly contrasted with the mere depression spoken of by Orfila. The temporary ligature, however, killed but one dog out of thirty-one. The permanent ligature, as was to be expected, was fatal to twenty-two dogs out of twenty-three. The greater part of these animals died from the third to the sixth day.

The most important question of the debate was to ascertain whether the fatal results of ligature of

the œsophagus, after the ingestion into the stomach of substances subjected to experimentation, might not be the consequence of the combined action of the ligature of the œsophagus and the necessarily powerless efforts to reject these substances, ven when not possessed of poisonous properties. This fact seemed confirmed by the death of a certain number of dogs that had taken, before the operation, from one to three drachms of sea-salt, of sulphate of zinc, of nitrate of bismuth, and even of lukewarm water. We will say nothing on the question of interpretation; it remained full of obscurity, and it is not precisely known why and how the victims of these experiments died under circumstances in which, according to Orfila's affirmations, they should have experienced scarcely more than discomfort, or some insignificant disturbance.

How deceptive or dangerous soever the results of experiments made on animals, in less practised hands than those of Orfila, may now be, we cannot admit that a man gifted in so high a degree with the talent of observation could have deluded himself for forty years, and have confounded the phenomena peculiar to the action of poisonous substances with those which owe their origin to the ligature of the œsophagus.

Dr. Cloquet, who witnessed several hundred experiments performed by the late Dean of the Faculty of Medicine (Orfila), proved, in a few words in the discussion, that the ligature of the œsophagus, performed with a thick and rather loose string, had never appeared to him to have the gravity now ascribed to it, and that Orfila knew perfectly well how to make allowance for the disturbance of functions peculiar to the operation. We may add that, after the vote on the conclusions of the report of the committee, which were considerably modified, on the motion of Dr. Devergie, Dr. Velpeau expressed the regret that, before proceeding to a somewhat precipitate vote, the Academy did not take into consideration a letter from Dr. Nonat, in which this gentleman declares that a series of twenty-two experiments made by him fifteen years since, with Messrs. Sandras, Deville and Guibourt, will convince any one who will read the details, that the ligature of the œsophagus has never occasioned any accidents of a nature to cast doubts upon the results of toxicological researches.

The upshot of these contradictory assertions is, in our estimation, a very positive fact, viz., that the ligature of the œsophagus was performed by Messrs. Bouley and Reynal, if not with less care, at least *otherwise* than by Orfila. The whole question here lies in the difference of the manner of operating. It is for experimentalists to investigate that of the master; but, in the mean time, we cannot see, in the conclusions of the report of the committee, matter important enough to assail the imperishable monument raised to the science of poisons by the great and noble mind of Orfila.—*Journal of Practical Medicine and Surgery.*

CHRONIC LEAD POISONING.

The following remarks on some of the more uncommon results of *Chronic Lead-Poisoning* are extracted from a paper by Dr. Fearnside, in the *Liverpool Medico-Chirurgical Journal*:

"A few comments upon the cases, an outline of which has just been given, may not be without interest.

"In the first of them, the absence for a considerable time, of any colic, and the gradual and insidious manner in which the poisoning took place, led at the outset to a misapprehension of its nature. The cause, indeed, is one which may readily escape notice; for in most large towns the supply of water, if not unexceptionable, is at all events so free from any noxious matter, that it rarely enters into our consideration as a source of disease. And when water contaminated with lead is habitually drunk, its effects may be such that some care is requisite to distinguish them from very different pathological conditions. Lead so introduced into the body may deleteriously influence the nervous and muscular systems directly, without the production of any premonitory colic. Indeed colic is by no means an invariable precursor of the other forms of disease occasioned by lead. Thus, Tanquerel des Planches (*Traité des Maladies de Plomb*) mentions that in the patients noticed by him, suffering from lead diseases, out of 102 examples of paralysis, there was no colic in 39 instances. In the cases under review, it was apparent that there existed a faulty state of the blood; but the fugitive muscular pains, the slight feverish disturbance, and the scanty secretions, caused this to be ascribed to the presence of a rheumatic diathesis. It very soon became evident, however, that this impression was an erroneous one, and on more minute investigation, the true nature of the complaint was revealed.

"The peculiar form in which the affection manifested itself is deserving of notice. The occurrence of convulsions as a consequence of lead poisoning has long been known. But it is not so generally recognized that delirium and coma result from the same cause. In the case first related, a condition allied to catalepsy and ecstasy was occasionally present. This also has been noticed by Tanquerel des Planches in two instances.

"It is under such circumstances as those present in the cases just given that the simple test of examining the gums of the patient is so important, and affords such valuable information. For it may be safely stated, that the blue colour of the gums around the teeth, is never present except in individuals who either are, or have lately been under the influence of lead, and in such it is very rarely absent. But its presence alone will not suffice to determine the nature of the disease, inasmuch as those who are habitually brought into contact with lead are equally liable, with the rest of the community, to other cerebral disorders.

"The most important diseases with which this form of lead-poisoning is likely to be confounded are: inflammation of the brain, and red softening; meningitis, meningeal rheumatism, delirium tremens, and the cerebral disturbance consequent upon granular disease of the kidneys. But from all these it may be distinguished by well-marked characters. There is not the unnatural heat of the head; nor the irregular pulse, suspirious breathing, feverishness and vomiting which mark the presence of inflammation of the brain; nor the excitement followed by the collapse usually seen in inflammation of the membranes of that organ. It presents some resemblance to the symptoms of red-softening in the delirious paroxysms, and in the loss of memory and confusion of ideas witnessed in their intervals: but it differs in the absence of true paralysis, or of rigidity of the limbs. The paralysis occasioned by lead is owing to muscular wasting, not to the interruption to the supply of nervous influence; and, moreover, it is seen only in particular groups of muscles. There is more probability of this affection of the brain being at first sight mistaken for meningeal rheumatism; but the fact that this is rarely seen, except in the course of acute rheumatism, or after prolonged rheumatic cachexia, should suffice to prevent any error. The delirium of lead-poisoning may be confused with that of delirium tremens. It is not accompanied, however, with the flushed face and injected eyes, nor with the incessant agitation of the limbs seen in the latter disease; and saturnine delirium usually alternates with somnolence, which is not the case in delirium tremens.

"Coma and convulsions are not uncommon results of granular disease of the kidneys, and frequently terminate life in that disease. They seem to be occasioned by a poisoned condition of the blood from non-elimination of the urinary elements, and so present considerable analogy to the affection under notice. The history of the complaint, and examination of the urine, will at once determine its nature.

"Thus, the distinctive features of the cerebral affections produced by lead appears to be,—the occurrence of delirium, coma, or convulsions, either separately or combined, without any considerable fever, or increased circulation of blood through the brain, and without any proof of vitiation of the blood from a rheumatic habit of body, or disease of the kidneys.

"The *duration* of the complaint in the case which ended fatally, was greater than in any of the examples recorded by Tanquerel. From the supervention of cerebral symptoms to the time of death, there elapsed a period of thirty-five days. The writer just named mentions seventeen days as the extreme limit of the corresponding stage in the cases which fell under his notice.

"The *morbid appearances* observed after death deserve a passing remark. They consisted in uniform slight softening and yellowish discoloration of

the brain. The reports of authors respecting the evidence of disease found on examination of those who have died from chronic lead-poisoning vary much. Some of the older writers mention congestion and effusion of serum, whilst recent authors describe hypertrophy of the brain as a not uncommon result. Discoloration of the brain has been seen by Grisolle and Martin Solon, and Andral records one case where its consistence was less than natural.

"It is interesting to notice, in the second case narrated above, that as a result of the perverted nutrition, and change in its minute texture, which the brain had undergone, a degree of mental alienation remained for many months after the other effects of the poison were thrown off. The mind of the patient was not only weakened, so that he was incapable of reasoning, but he was the subject of various delusions. How long these remained I am unable to state, having lost sight of him in consequence of his removal from the town. Tanquerel relates that he has seen in the Bicêtre several individuals suffering from the effects of lead, who had been sent to that institution as insane.

"Respecting the *treatment* pursued in these cases it is necessary to say but little. The use of the poisonous water was, of course, abandoned as soon as it was recognized as the cause of the existing mischief. The leading indications then were, to sustain the patient's strength, and to promote the elimination of the poison from the system. To accomplish this latter aim, iodide of potassium and sulphur were perseveringly employed, and seemed to be useful. Strychnine and galvanism aided materially in the recovery of the lost muscular power."

ELECTRICITY AS AN ANÆSTHETIC IN TOOTH-DRAWING.

The occurrence of death in persons under the influence of chloroform, though comparatively rare, has caused not a few to turn over in their minds what means there might possibly be of producing anæsthesia which should be free from danger to life. The freezing plan of Dr. James Arnott is a valuable adjunct to our anæsthetic resources, and though less capable of extensive application than inhalation, may be employed with service in many cases. Latterly, a new plan of producing insensibility during the extraction of teeth has been devised by an American dentist, Mr. J. B. Francis, of Philadelphia. In the *American Journal of Dental Science* for July, 1858, we are informed that a number of operations of this kind had been rendered painless by means of electricity, in the presence of the Sub-Committee on Science and Arts constituted by the Franklin Institute of the State of Pennsylvania, and of other gentlemen. The exclusive right to the application of electricity for the producing local anæsthesia in the extraction of teeth has been secured by Mr. Francis, who thus has, for a term of fourteen years, the sole privilege of "making, constructing, using, and vending to others to be used," the necessary apparatus. The news of this discovery, on reaching this country, has excited much interest. A considerable amount of correspondence on the subject has recently appeared in the *Times*, from

which we make such extracts as will show the *modus operandi* of the agent.

Mr. W. K. Bridgman, of Norwich, describes the apparatus required, and its application, as follows:—

The apparatus is extremely simple, and consists principally of the common electro-magnetic machine used in medical electricity, a single cell and pair of plates constituting a Smee's battery, and a small electro-magnetic coil, with a bundle of wires for graduating the strength of the current. One end of the thin wire conveying the secondary current is attached to the handle of the forceps, and the other end of it to a metallic handle to be placed in the hand of the patient. The instrument touching the tooth completes the circuit, and the current passes instantaneously. The wire attached to the forceps should be made to pass through an interrupting footboard, so that the continuity of the wire may be made or broken in an instant by a movement of the right foot of the operator. The advantage of this arrangement is, that it allows the instrument to be placed in the mouth without risk of producing a shock in coming in contact with the lips, cheek, or the tongue. A hole drilled in the end of the left handle of the forceps, and the end of the wire tapered to fit rather tightly, allows the substitution of one pair of forceps for another with scarcely a moment's delay.

Some cautions, however, are necessary. Mr. Joseph Snape, Dentist to the Chester Infirmary, says:—

"The current should not be applied to a tooth with an abscess at the root, to a loose tooth, or to fangs imbedded in spongy gums, as the pain, in such cases, appears to be increased. When the sides of a tooth are decayed nearly or quite to the gum, the tooth and surrounding parts should be rendered as dry as possible, by means of French bibulous paper. Fangs, when the gums are not spongy, may be extracted with the forceps after being treated in the same manner."

Again, Mr. C. Spence Bate, in the same paper, says:

"The application of the wires from an electric coil and Smee's battery, higher charged than $1\frac{1}{2}$ deg., is in itself very painful to the gums and internal mouth. It is therefore an object of much nicety to regulate the amount of electricity, so as to preclude a painless operation becoming a very painful one, either from too much or too little electricity being administered. In his own case, Mr. Bate felt a bearable amount of electricity when the instrument was placed upon the tooth (under wisdom-tooth), but the same amount applied to the gums over the front teeth was excessively painful. The quantity of electricity that made the operation painless to him was not enough to kill the sensation of pain in a gentleman, for a similar tooth; whereas, in a lady, shortly after, it was quite successful with a less amount. In placing the instrument in the mouth, it is desirable that the broken contact in the negative rod should be restored before the instrument comes into contact with the gum, since the insertion of the former beneath the latter is one of the most painful parts of the operation in tooth extraction.

In the *Medical Times and Gazette* of September 11, Dr. B. W. Richardson has published an article, with the view of recording his own observations on the use of electricity as a means of producing anaesthesia:—

His attention was first drawn to the subject in the year 1858. He was engaged in investigating the influence of electricity on the blood in the living animal body. In one experiment, a small dog was subjected to an electrical shock, resulting from the discharge of a battery of seventy-two Leyden jars. Wire chains were placed, one round the throat of the animal, meeting over the upper part of the head, the other round the body at the loins. The whole charge was at once passed through the body. The animal fell without a struggle, and lay to external appearance dead. There was no respiration for several seconds, but the heart continued beating. A little later there was a feeble respiratory gasp. Dr. Richardson pricked the nose with the point of a scalpel, and blood issued, but no indication of sensibility fol-

lowed. A minute afterwards he laid bare about an inch of the right jugular vein. He tapped the vein, drew off a few drachms of blood, passed a ligature round the vessel, above the opening, brought the edges of the flesh-wound neatly together, and secured them by suture. By the time he had done, the signs of reanimation were well marked; but the operation had been performed without the slightest evidence of suffering. For a little time the respiration was short and irregular, but in a few minutes the animal rose slowly, looked about him, and recovered without a bad symptom.

This was probably the first instance in which any operation was performed without pain, by means of electricity. This result of the experiment was purely accidental. The fact of the production of insensibility was, however, striking; and this fact at once suggested to him, that what could be done to the whole body might possibly be done to a part.

Dr. Richardson tried the effect of passing electrical shocks, of varying intensities, through the limbs of animals. The shocks were severely felt; but he could never detect that at any instant after the shock the sensibility of the parts through which it had passed was at all destroyed. There was often some temporary twitching of the muscles of the limb operated on, but the merest attempt to produce pain succeeded.

Having charged twenty Leyden jars, he discharged them, either in combinations, or one after the other, in rapid succession, through one of his own fingers. The shocks were painful, and when many were given, the last was felt as severely as the first; but afterwards the finger was as sensitive to a prick from the point of a lancet as it had been previously. He tried the local effect of the continuous current for long periods, but with as little success. He passed the electro-magnetic current through one finger for long periods, modifying the intensity of the shocks; sometimes submitting the parts, for periods of an hour or more, to a gentle current; at other times increasing the force till the pain produced was scarcely endurable. On January 3, and on August 1, of the present year, he kept a finger for two hours thus exposed, but in these, as in all other cases, without the slightest effect in removing sensibility. While the finger was being subjected to the current, he tested its sensibility by pricking it with a lancet or needle.

In its local application, indeed, Dr. Richardson finds that the electric current restores rather than destroys sensibility. He placed the first and second fingers of the left hand in a mixture of ice and salt till they were entirely insensible to puncture; he then removed them from the mixture, and, after well drying them, he placed one wire from the electro-magnetic battery round the second finger, at a distance of three-quarters of an inch from the tip, and the other wire round the finger at the base. A gentle current was passed. For a brief period he was not conscious of the shocks; but suddenly the portion of the finger included between the wires, from being white, became red and injected, and therewith there was excited a degree of pain that was unendurable. On removing the wires, and applying cold once more, the acute pain passed off. But the most interesting point was, that while the first finger regained its normal sensibility in the course of an hour, and the second regained its normal sensibility in the parts which had been enclosed between the wires, the end of this second finger, from the point beyond which the upper wire had encircled it, remained completely insensible for four hours, and felt slightly numbed even thirty-six hours later.

From these experiments, Dr. Richardson has no alternative but to believe that the electric current cannot, according to our present knowledge of its application, be made practicable for the production of local anaesthesia. The only way by which he believes electric shocks can in any way be said to remove pain locally is, that the pain which they excite creates a diversion, so that any new pain which may be inflicted on the part is not felt the less, but is lost in some degree in the pain

which was pre-existent. The schoolboy tells his new comrade that he can remove a hair from his head without the removal being felt. The skilful operator seizes a hair with his left thumb and finger, pulls it out quickly, and at the very moment strikes the head of his dupe a smart blow with his flat right hand. The operation is performed, and, it may be, without the pain which would have been elicited by a simple pull. The pain, however, is not removed, but diverted. When Dr. Richardson's finger was painfully affected by the electric current, the entrance of the lancet or needle-point into the skin caused sometimes a more acute, sometimes a less defined pain, than is ordinary. Mr. Louis Parnell, who allowed him to perform some experiments on his finger, felt the same sensations.

The first experiment related shows that a powerful electric shock, sent through the whole body, will produce insensibility; why, therefore, should it not have the same effect in its local application? A dose of aconite tincture will render a body generally insensible to pain; a drop of the same tincture, put on the lip, will produce numbness of the lip. Here is brought out at once a general and a local effect, each alike in kind, but different in degree. Why then should not the same obtain with the electric shock? Dr. Snow has described, and to Dr. Richardson's mind proved, that the sensibility of the body may be destroyed in two ways: first, it may be destroyed by the direct effect of some benumbing agent on the extremities of the nerves of the part; secondly, by the effect of the agent on the centres of intelligence—i. e., by the destruction of consciousness. Thus, the effect of some narcotic vapours, taken into the system at large, may even be contrasted. Amylene, for example, acts mainly on the extremities of the sensory nerves, interfering but feebly with the consciousness. Ether, on the other hand, suspends sensibility in proportion as it destroys consciousness. When a powerful electric shock is sent through an animal body, it destroys sensibility, not because it is a local anæsthetic, but because it strikes out at a blow the consciousness. The animal, for the time, is dead to all impressions, pleasant or painful. An animal stunned by a blow, or in syncope, is in the same condition. In this explanation Dr. Richardson finds the reason why electricity, as generally applied, *did*, and, as locally applied, *did not*, produce insensibility.

From Dr. Richardson's experiments, therefore, it would appear that electricity, locally applied, can only produce insensibility to a pain by inducing another—perhaps a greater—pain, and thus diverting the attention.—*British Medical Journal*.

HOSPITAL FOR SICK CHILDREN.

SEBACEOUS TUMOR CAUSING ABSORPTION OF THE BONES OF THE SKULL.

Under the care of ATROL A. JOHNSON, Esq.

Sebaceous tumors of the scalp are usually very simple affairs; and although the operation for their removal has its peculiar dangers, connected with the liability of the scalp to erysipelatous inflammation, especially in persons of advanced age and feeble or impaired constitution, it is usually performed without any thought of danger from the anatomical relations of the cyst; nevertheless such danger, though in rare cases, does sometimes occur, from the perforation of the bones of the skull by the tumor—the result, in most cases, it is to be presumed, of pressure, though instances of congenital cystic tumors are on record, in which it is possible that the formation may have been originally internal to the bones, which have been formed over the tumor, so that the latter has been enclosed within the ossifying cranium. The attention of the College of Surgeons was called to this fact, we believe, by Mr. Prescott Hewett, in his recent course of lectures. Many surgeons have

noticed instances in which the common sebaceous encysted tumor has produced erosion of the bones of the skull. Thus Nélaton (*Pathologie Chirurgicale*, art. Affections de la Tête Tumeurs Enkystées) speaks, though very cursorily, of two cases reported by Lenoir and Delpsch, in which this peculiarity was observed. The best description, however, of such a case, with which we are acquainted, is in the splendid work of Auvert (*Selecta Praxis Medico-Chirurgica*), in which, Table II., Fig. 1, there is a very perfect representation of a frontal bone, in which a depression is seen, occasioned by a sebaceous tumor, situated almost in the same position as the one of which we give notes to-day. In that case, however, there was a distinct perforation of the inner table, so that the cyst of the tumor had lain in direct contact with the dura mater.

The patient was a soldier, aged 25, and the operation was undertaken with the knowledge that the external table was absorbed; but, from the absence of pulsation, it was hoped that it was separated by bone from the cranial cavity. The operator was successful in removing the cyst entire; nor does it appear that the dura mater was in any way injured. Diffuse inflammation of the scalp, and of the membranes of the brain, followed, and proved fatal.

We remember also seeing a case, in the practice of Mr. Prescott Hewett, in which a tumor, which was supposed to be one of the common cysts of the orbit, and which was so as to its structure, had perforated a portion, at any rate, of the roof of the orbit, and where (if we remember rightly,) the dura mater was exposed by the removal of the cyst. The patient did well.

In December last, a child, three years old, was taken to the Hospital for Sick Children, with a tumor, about the size of a small walnut, corresponding to the middle part of the upper border of the frontal bone. There was no discoloration of the skin, and the anterior fontanelle was quite closed. The tumor had first made its appearance when the child was eight months old; it was then small, but had gradually increased in size. It was removed by Mr. Athol Johnson, and was found to consist of a cyst filled with sebaceous matter, placed under the occipito-frontalis. The under surface of the cyst was intimately adherent to the periosteum around; it was, moreover, sunk deep in the bone, which presented a cup-like cavity. Perforation of the bone was not actually made out; nevertheless, as there could have been but a very thin plate of bone left, Mr. Athol Johnson thought it advisable, after emptying the cyst, not to remove the small portion adhering to the centre of the cup-like depression. The child did well. The parts healed with a depressed scar adherent to the bone beneath.

When seen a few days ago the wound was firmly healed, but the depression had not been filled up. The child was in perfect health.—*Brit. Med. Journal*.

ATROPHIA ENTERICA.

Dr. Lederer recommends opium in almost all the cases of enteric atrophy, particularly where pain and loss of sleep are prominent symptoms of the disease. Warm poultices over the abdomen, and warm baths, are occasionally salutary. Diarrhœa is best treated with nitr. argent. nux. vomica and tannic acid. Breast milk is the best food for very young children; raw meat is digestible only in the beginning of the disease. Baths, with milk, beef-tea, and the embrocation of liquid fats, have a good effect.—*Weiner Medicinische Wochenschrift*.

DIARRHŒA ABLACTATORUM.

About seventeen years ago Dr. T. F. Weisse, Physician of the children's hospital, St. Petersburg, recommended raw beef, scraped, as the best remedy

against diarrhoea setting in after weaning. He repeats his recommendation, coupling his own experience with that of many well-known observers. It is a curious fact, and worthy of comment, that *tœnia solium* occurred in many of the cases cured by the use of raw beef. This parasite is not usually found at St. Petersburg, but, according to D. Von Liebold, is introduced into the Russian capital by Podolian cattle.—*Journal für Kinder Krankheiten.*

MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.

The usual monthly meeting of the Committee of the above Society was held on the 30th ult., at the College of Surgeons. Dr. Benson, Chairman of the Committee, presided. The Secretary had the pleasure of reporting, that since the last meeting he had transmitted to the Earl of Eglinton a copy of the Society's Report for 1855, and that his Excellency had kindly and promptly forwarded a donation of £5 to its funds. A warm vote of thanks was presented to the Lord Lieutenant for his gracious contribution. A sum of £3 was also received from Mrs. Kirby and the Rev. J. Kirby. Such distinguished and non-professional assistance is, so far, not only satisfactory proof of the value of the Society, but also a strong inducement to such members of the profession as have not as yet subscribed to enrol themselves as members. Applications having been received on the part of two medical gentlemen, who stood in need of assistance for the sake of promoting the education and advancement in life of some members of their families, it was, after considerable discussion, concluded, that the rules of the Society would not admit of such an application of its funds, unless that its resources were much less limited than at present.

The Committee then adjourned to the last Thursday in October.

THE REGISTRAR-GENERAL'S REPORTS.—The remonstrance addressed by Dr. Barker and his colleagues in the staff of meteorological observers to the Registrar-General, has not been attended with success. The remonstrance was signed by nearly all the gentlemen who, at a cost of much time, labour, and expense, furnish the observations which form the basis of the valuable meteorological returns contained in the *Quarterly Reports*. The reason assigned for refusing to comply with the wishes of these gentlemen is, the reduction of "expense occasioned by the lavish gratuitous distribution of government publications;" and the hope is expressed that the "expenditure of the small sum" of one shilling and four pence, in purchasing the quarterly returns each year "will not deter the observers from continuing their useful labours." Not one of the meteorological observers, we are convinced, would grudge the sum of sixteen pence a year for the purchase of such valuable documents; but the matter becomes simply one of self-respect, and no one can be surprised that they should give broad hints of their intention to discontinue supplying the results of their labours to the Registrar-General, if they are to be denied an act of ordinary courtesy for the sake of saving a small sum of money. "Lavish gratuitous expenditure" might be reduced without offending common justice and civility.—*British Medical Journal.*

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At a special meeting, held this day, Dr. Aquilla Smith was elected as the representative on the General Council, pursuant to the provisions of the Medical Act, 21 and 22 Vict., c. 90.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—Dr. Robert Carlisle Williams was unanimously elected as the representative of the Royal College of Surgeons, in the General Medical Council of the United Kingdom.

APOTHECARIES' HALL.—At a meeting of the Council of the Apothecaries' Hall of Ireland, held this day, Dr. Charles Henry Leet was unanimously elected as their representative in the General Medical Council of the United Kingdom.

We extract the following from the *Allgemeine Zeitung*, dated Heidelberg, September 6:—"The first oration was given yesterday, to our newly-appointed Professor of Physiology, Dr. Helmholtz. A great number of ophthalmologists assembled, as in last year, to dedicate a few days to scientific and social conversation in company with their renowned teacher, Professor von Graefe, of Berlin; and as Professor Arit, of Vienna, was present at this agreeable rendezvous last year, so did Professor Donders, of Utrecht, equally celebrated as physiologist and ophthalmologist, and Professor H. Müller, of Würzburg, indisputably our first living authority on the anatomy of the eye, join this year in the proceedings. The mornings were dedicated to scientific discourses and discussions, and the evenings to excursions, in which the whole company took part. Several 'savants' and physicians belonging to Heidelberg, particularly Dr. Helmholtz (who is so highly famed on account of the services he has rendered to ophthalmology), also took part in the excursions of the visitors, who had come together from every province of Germany. Before the company broke up, a token of acknowledgment and gratitude, in the form of a drinking cup, was presented by the assembled ophthalmologists to Dr. Helmholtz, as the inventor of the ophthalmoscope—that instrument, which, as is well known, has transformed the whole science of ophthalmology, and conferred incalculable blessings on suffering humanity."

LUNACY STATISTICS.—In Ireland, at the end of the year 1856-7, there were 3,856 insane persons in confinement, against 3,683 in 1856, and 3,199 in 1855. There were 1,281 insane paupers in union workhouses in Ireland in the year 1856. The receipts of the Irish Asylums, in 1856-7, amounted to £82,375, and the expenditure to £77,432.

THE COMMISSIONERS OF POOR-LAW have sanctioned the resolution of the Board, respecting the increase of salaries to the Medical Officers of the rural districts, as well as to the House Physicians. The pay of all has now been equalised to the same standard, and fixed at £100 per annum.—*Cork Reporter.*

GYMNASTIC EXERCISES.—In the treatment of disease of the nervous system in general, and chorea in particular, gymnastic exercises are carried on at the Salpêtrière under M. Laisné's superintendence; also at the *Enfante Malades*, and the *St. Eugénie*. Of 108 children thus treated, cure was obtained in 102. The children are greatly pleased with this valuable mode of treatment. The little patients who have been thus cured assist in applying the same treatment to the newly admitted.

DEATHS.

September 27, after a tedious illness, at the residence of his brother, W. J. Shiell, Jun., Esq., M.B., Malahide, Dr. Charles Augustus, aged 27, the beloved son of W. J. Shiell, Esq., M.D., Clonmel.
On the 29th Sept., suddenly, at Rathmines, Thomas Hawke-worth Ledwich, M.R.I.A., Fellow of the Royal College of Surgeons, Ireland, Surgeon to the Meath Hospital.

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LARGE PROSTATIC CALCULUS REMOVED BY A RECTO-PERINEAL OPERATION.—RECOVERY.

By FRANCIS B. QUINLAN, M.B. T.C.D.,
Surgeon to St. Vincent's Hospital.

Denis M., aged 40, was admitted into St. Vincent's Hospital on June 21 of the present year. He states that about two years ago he was attacked by the ordinary symptoms of stone in the bladder; that he was admitted into St. Vincent's Hospital, under the care of my predecessor, the late Dr. Bellingham, who detected and removed two calculi of considerable size by the ordinary lateral operation. He adds, that although the wound left after the operation healed up readily, he never either regained his perfect health, or was quite free from pain; and that during the last six months his symptoms had become very much aggravated. At present he is obliged to pass water every three-quarters of an hour, both day and night, in quantities which never exceed two ounces. The act of micturition is accompanied by a severe scalding sensation in the urethra, which continues for about quarter of an hour after. He is also annoyed by intense pain in the glans penis, which, together with the suffering attending on micturition, prevents him from sleeping at night, and keeps him in a state of continual fever. He is much emaciated; his face is thin and anxious, but does not exhibit the expression of a person labouring under organic disease. His tongue is furred; his pulse is quick; a strong urinous smell is given off him; he does not suffer from pain in the back.

On introducing a steel sound, I discovered that it clinked against a calculus, at the distance of six and a half inches from the external orifice of the urethra. By a little manipulation, the end of the sound could be caused to mount over the calculus, and pass into the bladder. On inserting my finger into the rectum, I at once detected the calculus, which afforded the sensation of being separated from the point of the finger by a septum as thin as parchment. The calculus appeared to be of a

pyriform shape, the broad end lying against the rectum, and presenting to the finger, the sharp end projecting into the membranous part of the urethra. Its size, as far as could be ascertained in this way, seemed to be about two inches and a half long, by an inch and a half broad. The perineum was small, and the cicatrix of the former operation quite distinct.

On examining the urine, I found that it was alkaline; the specific gravity was 1020; it contained a good deal of albumen, and a copious precipitate, which, when placed under the microscope, was found to consist of a large quantity of ropy vesical mucus, some pus, a little blood, a good number of prismatic crystals, of triple phosphate of ammonia and magnesia, and some amorphous phosphate of lime.

Immediately on admission he was ordered a mixture of buchu and hyoscyamus, hip-baths, a suppository every night, hot stupes to the pubic region, a nutritious but not stimulatory diet, and the other means calculated to relieve his symptoms. Under this treatment he got much better; the feverish state of the system lessened; the urine became at first neutral, and then faintly acid; the pus and blood disappeared, and the quantity of albumen diminished; the mucus, however, remained, and the pain accompanying micturition, as well as that referred to the glans penis, continued unabated. It soon, therefore, became evident, that unless the calculus was removed, death from pain and exhaustion would in a short time put an end to his sufferings. All my efforts, therefore, were directed to render him fit to bear the operation, which, on Friday, July 30, was performed as follows:—

The patient having been put under the influence of chloroform, and placed in the lithotomy position, a staff was introduced, for the purpose of bringing the calculus well forward. I inserted the middle and fore fingers of my left hand into the rectum, until I got well beyond the calculus; I then passed between my fingers a sharp-pointed bistoury, the point of which was armed with a piece of wax the size of a pea, which, while it hindered the point

from entangling in the fingers or the mucous membrane of the rectum, did not prevent it cutting when required. Having passed the bistoury up to the farthest part of the calculus, I cut down upon it from end to end, dividing in the mesial line the rectum, the sphincter ani, and the structures of the perineum, as far as the bulb. Very severe hæmorrhage ensued, which, although profuse while it lasted, was of short duration, as no vessel of importance had been divided. I was now enabled to get my fingers, which I had not removed from the rectum, down on the calculus, which, however, was so brittle that it came in pieces the moment I attempted to stir it. I extracted some large fragments, and a good quantity of *debris*. There were other fragments, which, however, were so firmly fixed, that they could not be got away without risk of laceration of the urethra; it was thought safer, therefore, to wait till they became loosened by the suppuration. Accordingly he was placed in bed, an opiate was administered, and fomentations were applied to the perineum and pubes.

10, p.m.—Not in much pain; the urine passes through the wound in distinct gushes, controlled by the patient's will.

July 31.—He is much easier. The urine is discharged through the wound about every hour; a few drops pass through the urethra at each discharge. He is occasionally attacked by darting pains in the glans penis; these, however, are not at all so severe as before the operation.

Wednesday, August 4.—Suppuration being now established, he was put under chloroform, and placed in the lithotomy position. A quantity of *debris* and some considerable fragments were removed by the fingers. The largest of these was extracted with some difficulty; it was of dumbbell shape, and had evidently formed the small end of the calculus. This was the portion projecting into the urethra, against which the sound struck, and over which it had to mount in order to reach the bladder. The existence of this peculiar formation had been detected by Dr. O'Ferrall, who, on examining the case previous to operation, described it, and told me that it would form the principal impediment to removal. Having ascertained, by a careful search, with sound and finger, of the urethra, the bladder, and the track of the operation, that not a particle of the calculus was left, the patient was ordered to bed.

August 20.—He sleeps well at night, and is free from all pain. He passes urine four times in the day, in quantities of about eight ounces each time. Nearly half the urine passes through the urethra, the rest through the wound, which is rapidly filling up by granulations. He is becoming quite strong and healthy, and takes his food with good appetite.

August 27.—He is still getting better. The urine remains about the same; less, however, is passed through the wound, which is still closing. Ordered to get up.

Monday, September 6.—He is doing very well; the quantity of urine passing through the wound is much diminished. He walks in the garden every day.

From this time he continued steadily to improve in every way. The wound filled up and contracted, until at last the quantity of urine passing through it was so small as not to cause the slightest inconvenience. I have no doubt but that it will, by degrees, perfectly close.

He was discharged in good health, and quite free from pain, on Friday, September 17, exactly seven weeks after the operation.

The operation described above was adopted after much careful deliberation, and is, I think, the only one by which the calculus could have been completely or safely extracted. It affords a good example of how much can be done with impunity in the mesial line of the perineum, and causes us to doubt whether an accidental wound of the rectum, in the ordinary operation for stone, is so dangerous a complication as it is laid down in books to be. It is remarkable that the patient never lost the power of retaining urine, and of discharging it at will—a circumstance which must, I think, be attributed to the fact, that the neck of the bladder was not completely divided. The calculus consisted of phosphate of lime, with a considerable proportion of organic matter. The total quantity removed, exclusive of some *debris* which could not be collected, weighed three drachms twenty-five grains.

A CASE OF CANCEROUS DEGENERATION OF CÆCUM AND COMMENCEMENT OF COLON.

By LEONARD KIDD, M.B.,

Assistant Surgeon, 27th (Inniskilling) Regiment.

The patient was a recruit for H. M.'s 24th Regiment, but attached to the 27th Regiment during the hot season of 1855, and admitted into hospital 8th September, 1855; he was an Englishman, aged 26, and of one and a half years' service; he was of a sallow, unhealthy appearance, and was admitted complaining of diarrhoea and tenesmas, under which he had laboured for three or four months. He described the evacuations as frequent, scanty, dark-coloured, and slimy, and attended by great pain. He had enjoyed good health up to the time of his arrival in India, a few months before his admission into hospital. His habits at home had been intemperate. He complained of weakness, thirst, and loss of appetite. Skin cool; tongue clean and moist; pulse rapid, and rather weak. On examination of the abdomen, the general unhealthy yellowish colour of the skin attracted attention. Midway between the umbilicus and right iliac fossa a hard mass, of a diffused, irregular nodulated form, about the size of a hand, was discovered; this was

slightly painful on pressure; the superficial veins in the neighbourhood were slightly enlarged. This tumor, until the time of examination, had never attracted his attention. He also complained of tenderness in the region of the liver, and pain up the right side.

It would be tedious and unnecessary to detail the daily notes of the case; the treatment was merely palliative, the disease being considered malignant.

May 29.—After visit yesterday he passed a quantity of pure blood from the bowels, after which the purging was checked for some time, but returned during the night, accompanied by pain.

June 9.—Twice purged during the night; feels easier this morning. Tumor carefully examined; it does not appear connected with the liver; it does not move on change of position. The common iliac artery appears to run close to its inner margin. Anæmic murmur in arteries of neck, and well-marked *bruit de diable* on right side of neck.

July 12.—Purging and occasional passing of blood continue. He complains of descent of piles; there is one protruded hæmorrhoid at the coccygeal margin of anus.

20th.—Feels weak, and inclined to faint. It is difficult to determine the presence of ascites, but there are some symptoms which would lead to a suspicion of its presence to a slight extent.

August 19.—Passes immense clay-coloured, thickish foetid stools.

September 2.—There appears to be a slight amount of ascites. Lying on either side causes purging.

13th.—No change discoverable in size or position of the abdominal tumor.

October 15.—He gradually became weaker and more emaciated, and died on this date.

The *post-mortem* examination, during my temporary absence, was made by Dr. Cameron, 27th Regiment. On opening the abdomen, a considerable amount of ascites was discovered, but no lymph, or appearance of any peritoneal inflammation. An irregular lobulated mass, larger than the clenched fist, occupied the position of the cœcum. On the anterior surface of the tumor was one large lobe, which, on further examination, was found to act as a plug to an ulcerated opening into the commencement of the colon. The extent of the opening was equal to about two-thirds of the circumference of a five-shilling piece. The lobe fitted accurately, being larger towards the internal surface of the intestine than externally, thus forming a conical valve, and preventing any effusion into the abdominal cavity. The greatest extent of disease existed on the anterior surface of the intestine. Posteriorly there was considerable thickening, but no abnormal adhesion, except superiorly, where there was slight adhesion to the right kidney. The small intestine was quite free from disease. Ilio-cœcal valve slightly thickened; ilio-colic valve very much so, so as to be larger

than the ilio-cœcal. On examining the interior of colon, which was the principal seat of the disease, its superior and anterior surface presented a jagged, ulcerated appearance, in some places deeply tinged with blood. Numerous tubercles, varying in size, protruded into its cavity, which, however, was rather enlarged than otherwise. During the rest of its course the large intestine was more or less ulcerated. The walls of cœcum were considerably thickened, but did not appear otherwise diseased. Liver and other abdominal viscera healthy, as also the heart and lungs. No enlargement of lumbar or mesenteric glands. On section, the tumor was firm, almost cartilaginous; colour whitish-grey.

This appears to have been a case of "Retro-Peritoneal" Cancer, similar, in some respects, to that given by Dr. Stokes in No. 4, Vol. 2, *Dublin Hospital Gazette*. It is also of interest, when compared with a case reported by Dr. Leas, in No. 13 of the same vol. of *Hospital Gazette*, in which there was also an ulcerated opening of the intestines, closed, however, from without, by the enlarged lumbar glands, instead of from within, as in the present case, by a conical plug, consisting of diseased structure. It is difficult to determine by how long the perforation of the peritoneum preceded death, but the form of the plug was such, that any escape of fluid from the bowel must have been impossible. At the same time, the complete absence of any inflammatory appearance, or of any steps towards repair, would seem to indicate that the giving way of the peritoneal tissue must have preceded death by a very short period.

Umballa, 24th August, 1858.

A CASE OF ANEURISM OF THE CÆLIAC AXIS.

By LEONARD KIDD, M.B.,

Assistant Surgeon, 27th (Inniiskilling) Regiment.

The patient, a colour-sergeant, aged 26, was admitted into hospital on 3rd September, 1856. He had been of intemperate habits, and about a year before his death had been under treatment for delirium tremens. On this present occasion he was only a few days in hospital; his chief complaint was of constant pain in the epigastrium and lower part of the abdomen, attended by obstinately confined bowels, furred tongue, and other symptoms of indigestion; he also stated that he felt a tumor in the epigastrium, and on examination a degree of hardness was quite evident, to the left of the epigastrium, in which situation there was also well-marked pulsation; but no bruit was conveyed through the stethoscope, though applied while the patient was in the recumbent as well as in the upright position. The heart's sounds were healthy and regular. There was only one stethoscopic examination made, in consequence of the numerous admissions of cases of fever and dysentery at

that time. Purgatives were administered by mouth and rectum, and leeches applied locally, without relief to the pain.

The suspicion of aneurism of the abdominal aorta was entertained, but not confirmed by extended observation before death, which occurred suddenly on 6th September, in the verandah of the hospital, while the patient was on his way to the rear. The body was not discovered for some time; it was found lying on the face, in a bent position, with the hands pressed on the belly.

Post-mortem Examination.—An immense quantity of clotted blood was found effused into the peritoneal cavity, bathing the intestines. For some time the aneurism eluded observation, the search having been entirely directed to the trunk of the abdominal aorta; but it was at last discovered between the layers of the lesser omentum, about the size of a walnut, involving the trunk of the cœliac axis. It had burst on the anterior surface, lacerating the omentum. It was apparently of recent formation, there being no fibrinous clot. A thin layer of condensed tissue surrounded the sac. The aorta was diseased; the internal coat extending into the aneurism was partially detached, thickened, and presenting atheromatous specks, which also extended along the whole length of the vessel up to the heart, which organ appeared healthy in all its tissues.

The patient had experienced the pain for nearly three months before admission. His father is said to have died suddenly, after having had somewhat similar pain.

REMARKS ON SUPPURATIVE IRITIS.

TREATMENT BY THE EARLY PERFORMANCE OF IRIDECTOMY.

By JAMES G. HILDIGE, M.D.

A number of cases of this disease occur, in which, although the most powerful antiphlogistic treatment is employed, it has not the slightest effect in arresting the secretion of pus, which is poured forth in such quantities, that the anterior chamber of the eye may become several times filled in the course of twenty-four hours.

In several cases which I have had an opportunity of observing, paracentesis of the cornea seemed only to increase the rapidity of the secretion, notwithstanding a conjoined powerful antiphlogistic treatment; as, for instance, in a case under the care of Professor Arlt, at Vienna, in which this operation was performed twice in twenty-four hours, the anterior chamber was again nearly half-full of pus ten hours after the second puncturing of the cornea.

In weak, debilitated subjects, who have been already bled, and treated with calomel and nauseants, and whose stomachs have become so irritable that they cannot bear even the simplest food, it is evident that a continuation of the antiphlogistic

treatment, as recommended in most of the works of the present day, is altogether out of the question; and although a few cases may eventually recover under it, yet by far the greater number are not benefited in the slightest degree, but even injured by it.

The following case occurred last winter, in Professor Jäger's practice:—A labourer, aged 30, was admitted into the Ophthalmic Hospital, suffering from iritis (non-specific). The treatment employed was the instillation of atropine every two hours into the eye, leeches, and calomel—the latter given in doses of two grains every third hour. Two days after his admission the anterior chamber of the eye was observed to contain a small quantity of pus, the situation of which was influenced by the position of the patient; and, as it increased rapidly, an incision was made in the inferior portion of the cornea, to give exit to it. Twenty-four hours afterwards purulent matter was again observed, the situation of which had, however, changed to the external portion of the anterior chamber. This was caused by the position of the patient, he being placed on his right side. The cornea was again punctured, and the patient was ordered frequent doses of the decoction of seneka, in order to attempt to arrest the suppurative process by causing nausea. After three days, during which period paracentesis of the cornea had been again performed, and emetics and derivatives of various kinds had been administered, the eye presented the following appearance:—The conjunctiva and sub-conjunctival tissue were considerably inflamed and injected, particularly in the immediate neighbourhood of the cornea; the anterior portion of the cornea, including the membrane of Bowman, was more or less opaque, particularly at its inferior portion, where the incision had been made: the internal layers, together with the membrane of Descemet, were also slightly opaque—the latter was studded with small grayish-white spots, about the size of the head of a pin; the anterior chamber had almost totally disappeared, and at the superior and external part of it the iris and cornea were adherent in two separate places. The pupil, which was half-filled by a mass of exudation, was of a triangular form, and immovable; the sight was consequently so impaired that the patient could scarcely distinguish one object from another. Some ten days later he was dismissed from the ward, with instructions to return for the purpose of having an artificial pupil made, which was done some time after. It is consequently evident, judging from this, and other cases which presented exactly similar symptoms, and which terminated in the same manner, that when a depleting treatment has exhausted the patient, without arresting the suppurative process, some other means must be resorted to in order to do so. That we have a powerful and efficacious remedy at our command is certain; and I need only cite one or two of a number of cases which occurred at von Graefe's *clinique*, in Berlin, to show its efficacy.

A young man, æt. 22, presented himself, suffering from acute iritis. The usual treatment—consisting of calomel, leeches, and the instillation of atropine four or five times a day into the eye, was prescribed. This treatment was continued for five days, during which time the anterior chamber was twice emptied of its purulent contents, by paracentesis; but, as the secretion of pus continued, all antiphlogistic treatment was stopped, notwithstanding the most violent pain in the orbital and frontal regions, and the operation of iridectomy was performed, a very small portion of the iris being excised. The orbital pain ceased within one hour after the operation, and the pus, which had been evacuated during the operation, ceased to accumulate. The only further treatment was the instillation of atropine five or six times daily into the eye; and at the end of fifteen days the patient was discharged, the eye being almost perfectly normal, with the exception of the slight irregularity of the pupil resulting from the operation.

In cases of relapse from specific or non-specific iritis, or where choroiditis (acute) is superadded to this disease, the same operation is attended with excellent results.

The following case of specific suppurative iritis occurred also under my own observation, at the above *clinique*. A woman of the town presented herself, suffering from iritis. The so-called condylomata, or wart-like excrescences of the iris, were present, and the case presented all the symptoms of syphilitic iritis. She had been cured of a sore at the orifice of the vagina some weeks previously, and had not taken mercury or any other remedy internally. Under appropriate treatment, the disease had almost completely disappeared, with the exception of slight injection of the conjunctiva and sub-conjunctival tissue; and she was about being dismissed from the hospital, when, on the twelfth day from her admission, the inflammation returned with increased violence, and symptoms of irido-cyclitis and choroiditis manifested themselves. The iridectomy was immediately performed, with the same result as before; and no relapse occurred during a period of three months, part of which time she attended as an extern patient.

In almost all cases of neglected or badly-treated suppurative iritis, we find the eye in such a state, that an artificial pupil must be made, in order to restore vision; whereas, if the operation were performed at an earlier period, the progress of the inflammation would have been arrested, and both patient and physician spared considerable pain and anxiety. I do not mean that this operation should be performed in every case of iritis that tends to turn to the suppurative form, because it is evident, that when only a small quantity of pus is present, and when the disease shows a disposition to yield to an antiphlogistic treatment, it is superfluous; but when the patient has been already subjected to a rigorous depleting treatment, and when para-

centesis has been performed once, or at furthest twice, and the pus still shows a tendency to accumulate, the operation should then decidedly be resorted to.

Allowing the disease to relapse into the chronic form is of the greatest danger to the patient; choroiditis and its consequences, exudation and separation of the retina from the choroidea, and, according to Beer, softening of the vitreous humour, are among its most frequent sequela. The spindle-shaped pigment cells of the stroma of the iris lose, in all cases of iritis, but particularly in the suppurative form, their shape and colour, and no doubt cause the iris to resist, more or less, the action of its muscles, so that it does not act so rapidly, or to the same extent, as in the healthy eye.

With regard to the source of the matter in the anterior chamber, there is a variety of opinions on the subject. Some eminent oculists, and among them Beer, state that it arises from abscesses in the iris, which burst, and pour their contents into the anterior chamber. Arlt, on the other hand, states that he has never, even in cases of the most intense iritis, seen anything approaching to an abscess of the iris; nor has he even seen a perforation of the same, caused by the suppurative or ulcerative process.

There is the same difference of opinion with regard to the small opacities deposited on the membrane of Descemet. Jüngken describes it as a separate disease, under the name of hydromeningitis; Mackenzie under the name of aqua-capsulitis; and Desmarres as *keratite pointillée*. Arlt, however, states that these point-shaped opacities never occur without iritis being present, and that they are almost always situated on the inferior part of the membrane of Descemet. He therefore asks why, if they are produced by inflammation of this membrane, should they not be situated on the upper portion as well? In a case which I had an opportunity of examining under the microscope, in the laboratory of Professor Brücke, at Vienna, these point-shaped opacities could be almost completely scraped off the membrane of Descemet with the point of a cataract-knife, whilst the membrane itself presented little or no symptoms of having suffered from inflammation.

NEW HOSPITAL IN VIENNA.—The *Standard* of September 3rd, publishes a letter from the Emperor of Austria to the Minister of the Interior, in which his Majesty states his intention of celebrating the birth of his first-born son by founding a new hospital in his capital; and orders that, in honour of the prince, it shall bear the name of the Rodolphe Foundation. The hospital must be built in a style of architecture in harmony with its destination, and must contain accommodation for one thousand patients, without distinction of origin or religion. The Emperor devotes to this purpose a space of ground of 8,800 square fathoms in extent, and orders that the expenses of building and management shall be defrayed by the general funds of the hospitals. He directs the Minister of the Interior to adopt the necessary measures for procuring plans and estimates, and to report thereon to him.

CASE OF POISONING BY THE BERRIES OF LABURNUM CYTISUS.

TO THE EDITOR OF THE DUBLIN HOSPITAL GAZETTE.

SIR—As I think the following case one seldom met with, I should feel obliged by your inserting the notes of it in the *Dublin Hospital Gazette*.

Your obedient Servant,

JAMES MOORE BENNETT, M.R.C.S. Eng.

Three o'clock, p.m., August 12th.—Mary Anne McGiven, aged eight years, residing at No. 16, Court, Prince William-street, was brought to the Dispensary in a state of collapse, by her father, who stated that she had been poisoned by having eaten some small peas, which she obtained from the country. The pupils of her eyes were dilated, and saliva was running from her mouth. She had been purged, and had vomited a good deal; her pulse was barely perceptible. I applied some liquor ammoniæ to the nostrils, which restored her to consciousness, but immediately afterwards there supervened severe tetanic spasms, similar to those resulting from the use of strychnia. I now gave her a scruple of sulphate of zinc and two drachms of hippo wine in a pint of warm water; about three minutes afterwards she vomited freely, and then remained rather tranquil, the spasms being less acute; and the pupils were not dilated to the same extent. In two hours afterwards her mother returned with a specimen, which proved to be the seed of the laburnum cytisus. I then ordered her a large dose of castor-oil. About seven o'clock, p.m., the spasms had returned more violently, particularly those of the face, presenting a peculiar appearance, the twitches of spasm being evident in each muscle successively. Her hands were firmly clasped, so much so that I was unable to open them; the muscles of the forearm were well marked, so that each one could be seen as if starting from its fellow; the soles of her feet were arched, and her toes quite rigid. I also remarked there was that peculiar duskiness of skin which Professor Taylor speaks of as one of the characteristics of poisoning by laburnum. I administered about a drachm of chloroform by inhalation, which succeeded somewhat in allaying the spasms. I then ordered a mixture composed of two drachms of chloric æther, three drachms of tincture of hyoscyamus, eight ounces of camphor julep; half an ounce to be taken every half hour.

I saw her again about eleven o'clock, p.m.; the spasms were still present; I therefore administered the chloroform, with the same result as I had obtained on the first trial—namely, the subsidence of the spasm when she was under the influence of it. I have visited her for several days since, the spasms returning at intervals, the twitches commencing in the tendons, and terminating in the

bodies of the muscles. She complained of great thirst, and pain over the region of the stomach. I still persisted in the use of the chloroform and the above mixture, with sinapisms applied over the heart and stomach, the action of the heart being extremely weak. It was not until the 25th of the month that she commenced to regain her own colour, and the spasms to leave her.

I have had under my care three other children from the same street, who had eaten the same sort of peas, and suffered similarly, but in a less degree.

South Dispensary, Liverpool,
Sept. 29th, 1858.

ON THE FORM OF THE EYE-BALL, AND THE RELATIVE POSITION OF THE ENTRANCE OF THE OPTIC NERVE, IN DIFFERENT ANIMALS.

By THOMAS NUNNELEY, Esq. F.R.C.S.E. (Hon.
Senior Surgeon, Leeds Eye and Ear Infirmary.

(Read before the British Association for the Advancement
of Science.)

It was well known, Mr. Nunneley observed, that the orbits are much larger than the eyeballs, and that their axes diverge considerably in an outward direction, while those of the two eyes are perfectly parallel. The eyeballs lie in the fore-part of the orbits, and, according as they are more or less prominent, and more or less covered with the lids, do they appear to be larger or smaller. The eye of the infant is larger, in proportion to the size of the body, than that of the adult; but it is by no means certain that the eye of the male is larger, proportionately to the size of the body, than the eye of the female. By some anatomists the human eye was described as a spheroid, the diameter of which, from before to behind, is greater than in any other direction. He had measured a great number of eyes, of the human subject as well as of animals, and he found, that wherever there was a departure from the spherical figure, it was in a direction contrary to that which had been commonly stated. In some instances the difference between the two diameters was scarcely perceptible; in all, where a distinction was observed, the transverse was the greatest. He had prepared a set of tables, which were printed, containing the result of the measurement of two hundred eyes of various creatures. The measurements, he thought, clearly proved that whatever part the fibres of the optic nerve play in the phenomena of vision, the greatest number of them are distributed on that part of the eyeball where there is the greatest range of vision, and that the greatest expanse of retina is on that part of the ball opposite to where objects are placed, and consequently it is where the visual image of them must fall. That this was a fact, a careful comparison of the position of the eyes in the head, the size of the eyeball, and the exact

position of the entrance of the nerve into it, with the mode of life and habits of various creatures, would render obvious. Man, from the erect position of his body, the horizontal placing of his eyes, and his habits, has a more panoptic range than any other creatures (of course in this consideration all motions of the head, neck, and body of the animal must be excluded, and those of the eyeballs alone admitted). In him the optic nerve enters the ball not far from the centre, leaving, however, a somewhat shorter space on the inner and lower parts of the retina than on the upper and outer. Now, while man enjoys a free range of vision above the horizontal line, there are far more occasions for him to look at objects below than above this line; and thus more visual images are projected to the upper and outer sides of the entrance of the optic nerve than to the inner and lower sides of this spot. In the pig, who sees at no great range before him, and who seeks his food with the snout almost always on the ground, whose head and eyes are consequently, for the most part, downwards and near to the ground, the nerve enters the ball more outwardly, and much lower, than it does in man. The pig wants not to see far before him, but he does require, while grubbing, to look behind him from whence danger comes. So with the timid herbivorous animals. In the bullock and sheep, who pass much time with the head in a dependent position, near to the ground, in open plains, the upper and inner sides of the retina are much larger than the lower and outer portions; while in the deer, who live in more wooded places, where danger is from the front, but who, like the bullock, has the head downwards in feeding, though the inner or anterior side of the retina is still larger than the posterior, it is so to a much less extent than it is in the bullock, while the upper portion still continues as proportionally large as it is in sheep and bullocks. On the contrary, in the horse, who is not so preyed upon, who carries the head erect, and observes all around, the nerve enters the eye more nearly in the axis. In birds, with few exceptions, the upper portion of the retina is much more considerable than the lower parts; but the anterior and posterior portions vary much in different genera. Those whose locomotion is performed principally by the feet, and whose range of habitation is very small—as the common fowl and turkey—have the inner or anterior portion very considerably greater than the outer or posterior. Those birds whose range is greater, and who use the wings for progression, but do not wander very far—as the grouse and partridge—have a much less difference in the two portions of the retina; while in those birds whose flight is far and prolonged—as the crow, rook, swan, goose, and duck—the entrance of the nerve is very nearly in the centre of the ball. So in reptiles: in the turtle, who only requires to see immediately before and under him, the outer and upper portion of the retina are very much the

larger. In the more active alligator, frog, toad, and chameleon, while the upper portion maintains its size, the outer and inner parts are more nearly equal. In those creatures whose habitation is for the most part under ground—as the shrew and the mole—the eyes are so small as to have led Magendie to assert that the mole is without the organs altogether; but this is not the fact, for all the essentials of an eye exist, even true retinal elements, optical nerve, and a well-developed choroid; yet the organ is so minute, and concealed by the skin and hair, as probably only to enable the creature to discern the light, which is all that it requires; for, living under ground, where it seeks its prey, it obviously must depend on the acuteness of other senses rather than of sight, for its living. Though in the individual there is usually some proportion between the size of the eye and the body, taking different classes and genera, the size of the animal is very little guide to that of the eye, the proportions between the two being determined by other considerations than that of the bulk alone of the creature; for though, as a whole, the eye, in fish, bears a larger proportion to the whole body than it does in other divisions of the animal kingdom, and the eyes of birds are, as a class, much larger than those of mammalia or reptiles, yet amongst the different genera of all these classes there are very great differences, determined, apparently, by the following considerations, amongst others not so obvious:—When the creature lives in feeble light, yet moves actively about, and is guided in its locomotion by the sense of sight—as in nocturnal birds and animals, and fish—the eye is very large, apparently to take in a large quantity of the feeble light; on the contrary, where the creature is guided in its movements by other senses, then the eye is very small—as in the bat, the mole, the shrew, and the eel. Where vision penetrates to a long distance, and where the eye enjoys great power of overcoming the aberration of parallax, the eye is large, as in rapacious birds. When the brain and intellect are more developed, the size of the eye diminishes, and the two eyes become more parallel, as in man and the higher mammalia. Where animals are feeble, timid, have but little defensive power, and are preyed upon, the eye is usually very large—as in the hare, the conies, the whole deer tribe, and many of the other ruminants. Where the animal is not predacious, and its size and strength are such as to protect it from being preyed upon, the eyes are commonly small, as in the whale and the elephant. In the latter the eye is even smaller than it is in the horse, and scarcely larger than in the eagle.—*British Medical Journal*.

Mr. DANIEL MORAN has been appointed Assistant Chemist to the Museum of Irish Industry by her Majesty's Government. Mr. Moran has been for some time past a very successful operating pupil in the chemical classes connected with the above institution.

NOTES OF EXPERIMENTS ON DIGESTION.

We copy from the *Lancet* the following summary of Dr. Harley's paper on Digestion, read before the British Association.

The communication was illustrated by numerous experiments, showing the properties of the saliva, the gastric juice, the bile, and the pancreatic secretion. The author stated that, contrary to an opinion lately published by Bernard, the distinguished French physiologist, he had found that the human saliva contains both sulphocyanide of potassium and iron. The latter substance, however, can only be detected after the organic matters contained in the secretion are destroyed by burning. Dr. Harley had ascertained, that a person of nine stone secretes between one and two pounds of saliva in twenty-four hours. The gastric juice does not destroy the power which the saliva has of transforming starch into sugar; consequently the digestion of amylaceous food is continued in the stomach. The gastric juice possesses the power of changing cane into grape-sugar, although it cannot form the latter substance from starch. The author then made some interesting remarks upon the cause of the gastric juice not digesting the living stomach, and said that his experiments showed that it is not the epithelium lining the organ which prevents its being digested, but the layer of thick mucus which covers its walls. When the latter substance is absent, the gastric juice attacks the living stomach, and soon digests it. As regards the bile, it seems that this secretion takes an active part in rendering the fatty matters of our food capable of being absorbed into the system. The most curious of all the digestive fluids, however, is the pancreatic secretion, for it unites in itself the properties of all the others. It not only transforms starch and other such substances into grape-sugar, but it emulsions fats, and even digests protein compounds. As a remedy in indigestion, pancreatine would therefore be vastly superior to pepsine, which can only digest one kind of food—namely, protein. The author said that he had been labouring to obtain the pancreatine in a perfectly pure state, and had to a certain extent been successful. With pure pancreatine we should be able to digest any kind of food, and therefore the obtaining it in a state of purity was a point of great importance to the medical practitioner.

THE NEW MEDICAL COUNCIL—At a Meeting of the Board of Trinity College, held on Saturday last, Professor Apjohn was elected to represent the University of Dublin in the General Medical Council. Dr. Stokes, Regius Professor of Physic, has been nominated by the Crown as the Government representative.

MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.—Dr. Wharton has been appointed Surgeon to the above Institution, in the room of the late Thomas Hawkesworth Ledwich, Esq.

Selections from British & Foreign Journals.

Extracts from the Transactions of the Association of Physicians at Stockholm.

PNEUMOTHORAX AND PLEURITIS IN A YOUNG CHILD.

Dr. Berg related the case of a child which had lately come under his notice, labouring under severe febrile symptoms, and which had existed for some days. The child was also very restless, and had cough. The examination of the chest on the first day did not lead to the discovery of anything abnormal. A bath and tartar emetic were ordered, and afterwards the child appeared somewhat easier. On the following day Dr. Berg discovered a pleuritic effusion on the right side. The effusion rapidly increased, and the child died on the fourth day, the percussion sound having become tympanitic over a portion of the right side, shortly before death. On examination, about three ounces of fluid were found in the pleural sac; the middle lobe of the right lung was somewhat solidified, and at its periphery there were some purulent infiltrations, one of which had perforated the pleura, and given rise to the pneumothorax. Dr. Berg had seen a similar case some years before, in which a swelling existed on the wall of the chest, giving a gurgling sound, and communicating with the pleural cavity.

NEEDLES IN THE BODIES OF CHILDREN.

Professor Santesson related the two following cases which had been communicated to him by Dr. Edgers, of Sköfde:—

A lively boy, of three years of age, was playing and jumping about in a sitting-room, and was frequently upon a sofa which was in the apartment. One of the servants of the house had left a steel shawl-pin from two and a-half to three inches long, sticking in the sofa. This could not be found afterwards, notwithstanding a close search. The child was merry as before, not evincing the slightest sign of illness. About a month after this, as an attendant washed the child she perceived something scratch against the sponge; as she looked with the view of discovering the cause, she perceived in the middle of the upper part of the breast bone, a little red spot about the size of a little flea bite; on passing the point of her finger over it she discovered something sharp in the skin. On the evening of the same day the point of a needle was seen projecting from the middle of the red spot. Dr. Edgers now saw the child, and found the point of a rusty needle projecting about two lines from the skin, and on investigation he found that the whole needle lay under the pectoral muscle, and in the right axilla, deep under the nerves and vessels. An attempt was made to extract it with a pair of nippers, which, however, failed. Dr. E. consoled the parents by assuring them that the needle which he supposed had been swallowed, and had passed innocuously to the child through many parts, would now by the aid of nature be expelled. He directed a linseed meal poultice to be applied to the chest, cautioning the maid to watch for the coming out of the needle. Three days after the needle projected so far as merely to be retained by the head, and towards midday, when it was intended to change the poultice, it could nowhere be found. As the child played and ran about, the poultice had fallen, and with it the needle.

The most extraordinary circumstance connected with this case is the fact, that during the whole time the foreign body was present, the child did not suffer the least uneasiness, nor at the situation of the needle was there redness or inflammation.

The subject of the second case was a child four years of age, who had swallowed a shawl pin with an enamelled head, some considerable time previously. Dr. Edgern directed that the child should eat food prepared with vinegar, to expedite the process of rusting. On the third day the child complained of pain in the right side, the needle being now in the duodenum, and producing pain by its point scratching the wall of the intestine. Subsequently the child felt well again, and on the eighth day the pin was found in the *faeces*. It is worthy of notice how little the child felt from swallowing such a body: notwithstanding the anxiety of the parents the little boy continued the entire time free from uneasiness, except when the body was passing through the duodenum.

In connection with the above, we copy from the last number of the *British Medical Journal* the following case of

DEATH FROM A WOUND BY A NEEDLE.

By JOHN DIX, Esq., Hull.

George Jack, a healthy infant, eight months old, was brought to me about two, p.m., March 21st. He was screaming bitterly, evidently in acute pain. He had been taken in-doors in this condition a few minutes before, by an elder child, who had carried him out for an airing. The mother directed my attention to the right side of the abdomen, where, on examination, I found, about midway between the lower ribs and the crest of the ilium, a minute puncture, as from a needle. About an inch above this the skin was slightly elevated by a foreign body prominent beneath. This projecting point rose and fell with the screams and respiration of the child; and so, under the active and immediate influence of the diaphragm, it was freely moved up and down beneath the integuments without perforating them. To the finger it felt like the head of a needle, and such it was ultimately found to be. There was considerable emphysema of the abdominal wall, and the child was in a state of depression approaching almost to collapse.

I made an incision over the needle, but failed to seize it with the forceps, and in my attempts to do so, amid the struggles of the infant, it was driven inwards, and was no more seen. A little bloody serum drained from the cut; air also came bubbling through.

Late at night I found that the child had been well dosed with castor-oil, and also with white mixture, by way of *quietus*. Dyspnoea, lividity, coldness of the surface, and a feeble, rapid pulse, were the general symptoms. The needle could not be felt.

Next morning the lethal weapon was again prominent beneath the skin, but it was now situated more than an inch higher up than the place of the incision, where it had projected on the former day. It had still no fixity, but receded from the touch of the finger. From this circumstance, in conjunction with the evidently sinking condition of the patient, I thought it prudent to make no further attempt at extraction, which would probably be again futile, and if successful, could not avert the fast-approaching termination of the case. About an hour afterwards the child died.

Here is the fatal needle *in situ*, as found on dissection. It enters the right side of the chest, between the cartilages of the eighth and ninth ribs, passing below the free edge of the lung without wounding it. At this part it immediately penetrates the convexity of the diaphragm, and so, taking a direction obliquely upwards and backwards, it traverses the upper portion of the right lobe of the liver; and again finding its way into the chest, it transfixes the lower lobe of the lung, and its point is at last arrested by the spinal column. This miniature bayonet is a common darning needle, three inches in length, broken through the eye. There had been no bleeding whatever, but the lung was completely collapsed and compressed by the escape of air into the

pleural cavity; and this sudden shutting up of half the breathing apparatus was probably the immediate cause of death. How the needle came there was never ascertained.

I relate this case rather as a pathological curiosity than as a practical study; and an examination of the specimen will probably be of more interest to this meeting than hypothetical deduction or theoretical commentary of mine.

CONVULSIONS IN A CHILD TREATED BY CHLOROFORM INHALATIONS.

The following case is reported by Dr. Altin:—

A child 10 months old was seen by him on the 23rd of February; it was well nourished, and with the exception of cough, otherwise healthy. The mother stated that the child had a fit of choking just before, with convulsive movements of the body. The first teeth had not as yet appeared, but it was evident from the appearance of the gums that they were near. The functions of the stomach and bowels were in order; there was no congestion of the head. Auscultation proved the presence of bronchial râles at the posterior part of the lungs. An emetic was directed, which acted well. Between three and four o'clock the child had an attack, with evident character of convulsions. The hands were first attacked; the thumbs turned inwards; tonic cramps of the muscles of the neck, and of the lower and upper extremities also occurred. Dyspnoea increasing almost to suffocation, with red congested face and staring eyes. These symptoms soon passed off. A dose of castor oil was given, followed after some hours by an enema, with some drops of tincture of colocynth. Between eight and nine hours, a fit took place which was more severe, and of longer duration than the other. Calomel and rhubarb, and a warm bath were ordered. After some green evacuations, and after having had the bath, the child slept until three o'clock of the morning of the 24th, at which time the convulsions again appeared. Musk with flores zinci was given every hour, and chloroform was sent for. Several hours passed without an attack, and hopes began to be entertained that the musk and zinc were preventing it, but it was not so. Two fits, which lasted long and were severe, occurred, with only an interval of an hour between each. Now it was determined, that on the slightest appearance of another fit, chloroform should be inhaled. On the appearance of the next fit, the chloroform was administered, but not effectually so as to cut it short. The child slept uneasily for some time. On the appearance of the next fit the chloroform was administered so as to produce its full effect, and the result was the cutting short the attack at its onset. The child slept, but on awaking shewed signs again of a coming fit; the chloroform was again given with the same favourable effect. The following night the child slept without awaking, and even in the morning appeared sleepy; the convulsions, however, did not return, and the child is at present in perfect health.

CASES OF ULCERATION AND PERFORATION OF THE VERMIFORM APPENDIX.

By DR. A. MERTENS, Berlin.

Before referring to the cases, Dr. Mertens makes some remarks upon the vermiform appendix; he notices its constant presence, not only in man but in apes, in the animals which walk erect, and its peculiar structure indicating that it must have an especial function. The elder Moaro supposed that the vermiform appendix served to keep the neighbouring intestine moist. In modern times it is merely looked upon as a rudiment of what we see in perfection in the lower animals. Neither of these views is well founded. Dr. Mertens throws out a suggestion that the vermiform appendix may possibly be analogous to the pancreas, playing the

same part, or a like part, with reference to the cœcum, as the pancreas does to the duodenal digestion. From his own investigations he is led to believe that the cœcal end of the appendix is surrounded by muscular fibres, which may be looked upon as a sphincter muscle. The functions of the cœcum are not well understood; some authors have supposed that a secondary digestion takes place in it, and have consequently denominated it the second stomach, but this is all hypothesis. It would be well if some one with time and opportunity at his disposal would institute a series of experiments, and investigate the structure, the comparative anatomy, and physiological significance of the vermiform appendix. That it has great pathological importance is proved by the cases in which ulceration has caused death, and that it is not a mere portion of intestine we may assume from the fact that dangerous consequences arise from the presence of fæces or foreign bodies. It is remarkable, that young persons are generally the subjects of ulceration and perforation of the vermiform appendix, a fact which reminds us of the observation of an English author, namely, that the vermiform appendix appears to have no other function than that of arresting cherrystones swallowed by thieving children.

Dr. Mertens relates two cases which occurred under his own observation. The first was a child of four years of age, which had been previously healthy; in the afternoon, after a hearty meal, the child was attacked by severe pain in the abdomen, which was considered to be cold by the mother, and treated accordingly. The pains, however, became more intense, with scarcely a pause, and nausea and inclination to vomit also now being added. Towards morning of the following day the child was first seen by the reporter, who found it with cold extremities, a small, quick, thread-like pulse, and a distended abdomen, sensitive on pressure; the tongue was not loaded, there had been no evacuation from the bowels for twenty-four hours. There could be no doubt of the existence of intestinal inflammation. Calomel in large doses was directed, and soothing enemata administered. These remedies proved unavailing, the nausea and sickness persisting. Ice swallowed in small pieces afforded some relief. On the following day the state of things was such as to indicate approaching death; the hands and feet were covered with cold sweat, the pulse thready, the abdomen hot and tympanitic, and vomiting of a coffee-brown-coloured fluid was now present. There had been no evacuation from the bowels; all means directed to attain this object had proved ineffectual. The child died towards four o'clock next morning. The body was examined thirty hours after death. The contents of the thorax were free from disease. On opening the abdomen a quantity of stinking gas escaped, also some yellowish stinking fluid. The stomach was contracted; the liver, spleen, pancreas, and small intestines were perfectly sound. Some inches of the cœcum were intensely red; the vermiform appendix was narrowed at its junction with the cœcum, and at its free end thickened, swollen, red, and perforated by two ulcers. Neither in the appendix itself nor in the peritoneal sac could any foreign body be discovered. The large intestines were free from disease, and the peritoneum did not present any alteration, except that in the neighbourhood of the cœcum it was strongly injected, but not inflamed.

The second case was of interest from its being diagnosed during life, and also from its being caused by a cherry stone, which being forced into the appendix was the cause of perforating ulceration. The subject was a child of five years of age, who was in blooming health, stout, merry, and full of life and spirit; he was seized with severe abdominal pains in the evening, which increased from hour to hour. On the following morning he began to vomit, the first matters ejected being the remains of food, afterwards a bilious dark-brownish fluid. In the night there was an alvine defecation, but henceforward the constipation was complete, con-

tinuing until death, no means employed being adequate to overcome it. The belly was greatly distended, and painful on pressure, but this sensibility was greatest in the neighbourhood of the cœcum. The countenance was not so sunken, nor the expression so anxious as in generally the case in abdominal inflammation. This circumstance, the manner in which the disease commenced, its duration (nearly three days), with the situation in which the pain was first experienced, and lastly, the absence of fecal vomiting, led to the belief that the vermiform appendix was the seat of the affection. Tympanitis increasing, and frequent attacks of vomiting of a dark fluid, but destitute of fecal odour supervening, death ensued. On examination of the body, all the organs were found healthy. The stomach was empty and contracted; the intestinal canal full of air, but otherwise normal; the vermiform appendix was of a blackish blue colour, and at one side was a gangrenous perforation; a cherry stone was found not far from this, enveloped in a purulent mass.

In addition to these two cases which fell under his own notice, Dr. Mertens gives two similar cases reported by Mr. Amyott, and published in the *Medical Times*. He notices the fact of the four cases occurring in young persons of the male sex—perhaps an accident. He regrets that he has not an opportunity of considering the subject as regards age, sex, &c., &c., but refers to Rokitsansky's works, and Copland's Dictionary of Practical Medicine (article Cœcum) for further information.—*Journal für Kinderkrankheiten*.

CASE OF INFLAMMATION OF THE COLON.

Dr. Abelin exhibited the large intestine of a child of a year and a half, who had died of colitis. Three months previously the child had a similar attack, and recovered. In addition to numerous ulcers, there existed many bodies resembling bilberries, which projected from the mucous membrane. It was believed at first that they were extravasated blood, but a microscopic examination showed them to be hypertrophied glands, in which pigment was deposited.

Dr. Abelin observed that the employment of enemata was not always advisable in the diarrhoea of children, as the irritation caused by them may have the effect of retarding recovery. So it was in the first attack under which this child laboured: so long as enemata were administered there was no improvement; when they were given up, a favourable change took place. They were given twice daily, and consisted at one time of solution of nitrate of silver, and at another of starch mucilage and opium.

CASE OF HYDROPHOBIA FROM BITE OF A DOG.

Professor Santesson gave the details of a case in which fatal consequences resulted from the bite of a dog. A healthy little girl, of eight and a half years of age, was brought into the Seraphim Hospital, on the night of the 12th of August. The child had approached too near to a chained dog, which sprung upon and lacerated her severely, holding her in his gripe until she was dragged away in a state of insensibility, by a man who came to her aid. On examining the child, two deep and long lacerated wounds were noticed, one on each parietal region; the pericranium was laid bare, but not injured. Slighter wounds existed on other parts of the head, and one on the left wrist. There was slight fever, without symptoms of injury of any internal organ. The little girl complained of pain in the wounds, and of heaviness, the consequence of loss of blood. After the wounds were cleansed, and a small artery taken up, soothing poultices were applied. The wounds soon assumed a healthy appearance, the fever subsided, the strength returned, and all went on well. In September all the wounds were healed, except that on the left side;

but on this new granulations sprang up, and subsequently small lamellæ of bone came away. Traces of blisters at each side of the frenum linguae, which have been looked upon as characteristic signs of hydrophobia, were not present. On the 26th of September, forty-five days after the receipt of the injury, the little patient complained of headache, pain in the neck, and some difficulty in swallowing; she was depressed, irritable, and easily moved to tears. The mucous membrane of the throat was somewhat red, but otherwise nothing abnormal could be discovered in the neck. In the evening she was restless and feverish, and during the night the restlessness increased, and she had no sleep. At times she lay moaning; at others she sprang about the chamber with wild gesticulations, so that it was difficult to restrain her. The next day the restlessness continued, but she lay in bed; however, she complained of general uneasiness and nausea, but particularly of headache, pain in the neck, and difficulty of swallowing. When she attempted to swallow, it seemed as if she were choking. Paroxysms of involuntary convulsive shuddering seized her, which increased in violence when she was frightened, or when a drinking-glass was offered to her, from which she shrank with evident horror. The muscles of the neck, particularly the deeply-seated, were very tense. The aspect was heavy, restless, and perplexed; the pupils were dilated, each eye equally so—and sensitive to the impression of light; the glance was anxious and staring; the respiration rapid and jerking, and so was the speech. The percussion sound of the chest was normal, but at the upper lobe of the left lung bronchitic râles were audible. The heart's action was intermittent; the pulse was small, but not frequent; the tongue clean and dry; the throat slightly red; the abdomen not painful. Neither the liver or spleen enlarged.

A mustard sinapism was applied to the neck, and quarter of a grain of morphia administered. At three o'clock the patient was easier, the respiration more free, the headache less distressing, but the pain in the neck continued as before. Some spoonfuls of water were swallowed, but with difficulty. At seven o'clock an unfavourable change took place; the respiration was remarkably hurried, and anxiety and restlessness returned. Pulse 100, small and intermittent. Swallowing became more difficult, and the convulsive seizures were more frequent; the headache increased in severity; the child avoided the light, and was frightened at the slightest noise. Chloroform inhalations were ordered, and the wound was dressed with Ung: Cantharid. It was necessary to restrain the patient, and to keep her in bed by force. When the chloroform produced its full effect, the breathing became more easy, the groaning ceased, the pulse became more full, and rose to 160. As soon as the effect of the chloroform passed off, the former symptoms returned, with even aggravated intensity. The chloroform was again repeated, and mercurial ointment rubbed into the parotidian regions and into the axillæ.

28th September.—From nine to eleven o'clock the chloroform inhalations were continued, with the same result, but on their cessation the symptoms attained to a shocking extent. The convulsions now were frequent, and more intense, and from between the closely clenched teeth frothy fluid was emitted. The features were sunken, the look wild and staring; the child spoke vehemently, and in a tone of command; fits of suffocation set in, leaving the little patient wild and distracted. Chloroform inhalations were again had recourse to, and persisted in for an hour. The paroxysm which next occurred was accompanied by violent vomiting. Towards morning the child died, after having lain down in bed, saying she was weary, and required rest.

On making the examination of the body, eighteen hours after death, remarkable cadaveric rigidity was observed, and on dividing the integuments, the odour of chloroform was perceptible. The brain and its membranes were congested; the lateral ventricles contained

some clear serum. In the choroid plexus there was found a concretion about the size of the head of a pin, and the fourth ventricle was distended with fluid. On opening the thorax, the lungs did not collapse; and, making a section, a notable quantity of dark fluid blood flowed out. The right lung was bound to the chest-wall by old adhesions, and the bronchial tubes were distended with purulent fluid. In the left lung there was an interlobular emphysema. The mucous membrane of the larynx was pale, that of the trachea red and injected; and the redness increased at the bifurcation, and extended throughout the bronchial branches. The heart was normal, and contained fluid blood and fibrinous coagula. The mucous membrane of the throat was remarkably red; the tonsils were swollen, and on dividing them, purulent fluid exuded. No trace of the vesicles under the tongue, before alluded to, could be discerned. On the mucous membrane of the stomach, particularly in the neighbourhood of the pylorus, there were some erosions. The mucous membrane of the intestines was healthy. The spleen was normal, and so were the liver and kidneys, with the exception of being gorged with blood.

The extent of the wounds in this case, and the locality, rendered the application of caustics as a prophylactic agent inadmissible.

During the prevalence of hydrophobia among dogs at Stockholm, many persons were bitten, and brought into hospital, but not one was attacked with the disease except this child. When the wounds caused by the bites were seated on the head or the face, or in the vicinity of the eyes, or if in the neighbourhood of great joints, or near great vessels, Professor Santesson abstained from the employment of powerful or deep destroying caustics, and merely applied lunar caustic, and otherwise healed them as ordinary wounds. The child whose case is given was not touched with nitrate of silver, as Dr Santesson was absent at the time the injury occurred. In another little girl who was bitten by a rabid dog, the face being the seat of fearful wounds, he did not venture to apply caustic to the whole extent of the injuries, and at the end of two years the child is free from hydrophobia.

Professor Santesson considers that in such circumstances the surgeon should not have recourse to the deep destroying caustics, but either use nitrate of silver or ammonia, turpentine, or creasote. That such mild means are frequently sufficient is proved by the fact, that many persons have been bitten at Stockholm who have not been prophylactically treated, or who have merely been touched with lunar caustic. In the absence of any known method by which a favourable result might be looked for, chloroform was employed, following the recommendation of Jackson, Smith, and others. Its operation was here only palliative, and not lasting, although the patient was kept under its influence for hours; its soothing and antispasmodic effects, however, recommend it in this disease—the more so, as other narcotics—as opium and belladonna—so frequently are found ineffectual.

Professor Santesson, remarking upon a case of tetanus, then in hospital, spoke of the resemblance between the disease and hydrophobia, which had led some physicians to believe them identical. This is not the case. The inoculation of an animal with the saliva of a man labouring under hydrophobia will produce this disease, proving its specific nature. The fact that simple injuries may cause hydrophobia, as well as tetanus, proves nothing, as Virchow observed, so long as the saliva of a tetanic patient, on being introduced by inoculation, will not cause hydrophobia, an experiment which has never succeeded. Moreover, the spasms in hydrophobia have not the tonic character which is so remarkable in tetanus, nor is trismus present. The spasms in hydrophobia are atonic, like to those in epilepsy. Both diseases present hyperæsthesia in the highest degree, which, however, in tetanus appears to appertain to the spinal marrow, and in hydrophobia to the medulla oblongata.

ON THE HOMOLOGY OF THE SKELETON.

By G. M. HUMPHAY, Esq.

The conclusions at which the author has arrived differ in some particulars from those of Professor Owen, more especially with regard to certain bones of the skull, such as the temporal bone and the components of the anterior cranial vertebrae. He considers that the pelvis is composed of the hæmal parts of two sacral vertebrae; that the scapula is composed of the hæmal parts of two cervical vertebrae; and that the limbs are appendages diverging from the points of junction of the hæmal spines with the hæmal alæ. The key to the exact comparison of the fore limbs with the hinder limbs, which has proved a source of much difficulty to anatomists, he thinks, is furnished by the fact that they are placed, the former near the anterior, and the latter near the posterior part of the trunk, and that consequently the opposed surfaces of their upper segments, as well as the opposed surfaces of the pelvis and scapula, are made to correspond; that is, the anterior aspect of each hinder limb corresponds with the posterior aspect of each fore limb. This disposition of the parts takes place during development. At first each limb is nearly straight; the hands and the feet bud out from the sides of the trunk, the palms and the soles look downwards, the thumb and the great toe are directed forwards. Subsequently, each limb undergoes a quarter turn, but in opposite directions. The anterior limb is rotated on its long axis backwards; the hinder limb is rotated in a similar manner forwards; the ilium and the femur slant forwards from the hip; and the scapula and the humerus slant backwards from the shoulder; the knee bends forwards, and the elbow bends backwards. In the anterior limb, however, the rotation of the distal segments, during pronation, is in an opposite direction to that of the proximal segments; and pronation is the more easy and habitual position.—*Proceedings of the British Association.*

THE FORMATION OF FIBRIN.

The formation of fibrin and its transformation goes on in the human body, M. Séquard tells us, not improbably to the extent of many pounds per diem. The researches of Schmidt and Bidder have shown that, judging from the amount of secretions, organic transformations must be very great. The dog, for instance, secretes in twenty-four hours a quantity of gastric juice equal in weight to one-tenth of the animal itself. Again twenty grammes of bile are produced every day in a dog for every kilogramme he weighs. These secretions prove that great changes are continually going on in the blood. Now it seems that true fibrin, such as is coagulable spontaneously in the air, disappears from the blood, which returns from the liver and the kidneys; and if, says M. Séquard, it be true that the liver and kidneys are the organs in which the fibrin is transformed into other principles, we must admit that in man four or five kilogrammes of fibrine undergo daily transformations there. Moreover, as the quantity of this principle in healthy blood does not vary, it follows that in the twenty-four hours four or five kilogrammes of fibrin are produced. This thesis M. Séquard argues out in a very interesting paper to be found at p. 298 of his *Journal Medical Circular*.

IODIZED FOOD.

At the last sitting of the Academy of Medicine of Paris, Dr. Boinet read a paper in which he proposed the introduction of iodine into the daily food of persons labouring under any of the diseases in which that element is chiefly prescribed, or else having a constitutional tendency to contract them. Considering that wens, crettenism, scrofula, &c., are very rare in those regions where iodine is abundantly diffused through the air, and that the energy of the vital functions is in the direct ratio of the quantity of iodine existing in the animal

economy, Dr. Boinet proposes to iodize bread, cakes, syrups, &c., simply by the introduction of such plants as naturally contain iodine, viz., all kinds of seaweed and cruciferous plants; or else by using the water of iodised springs, or salts containing the same principle. Under these forms the quantity of iodine administered is so small as to communicate no peculiar taste to the edible substance. After ten years experience, during which Dr. Boinet has treated children specially selected by a physician of a bureau de bienfaisance for their scrofulous habit, he has come to the conclusion that the diet he proposes, if persevered in for some months, will not only cure scrofula, but ulcerous habits, diseases of the skin, ophthalmia, caries of the bones, &c. The Academy of Medicine has referred Dr. Boinet's paper to a commission composed of Drs. Chatin and Trouseau.

NEW TREATMENT OF CROUP.—ARTIFICIAL DILATATION OF THE LARYNX.

The intensity of this affection, so dangerous to children, it is supposed will soon be completely subdued by the progress of modern science. Some time since Dr. Loiseau published his bold and ingenious method of introducing caustic solution into the windpipe; we have now to register another process, recently communicated to the Academy of Sciences by Dr. Bouchut. Some time ago the same gentleman announced, that when asphyxia is imminent in croup, the patient is in an anæsthetic state—in other words, insensible to pain. This state Dr. Bouchut takes advantage of, in order to introduce a tube into the glottis. To effect this operation, a probe of a peculiar construction is used; the tube is from six to fifteen millimetres in diameter, and from eighteen to twenty-four in length; it is fastened to two silken cords, by which it is moored, so to say, to a collar outside, to keep it in its place. It might be supposed that the larynx, which is so irritable that a single drop of water or a crumb, going the wrong way, according to the familiar expression, will cause considerable coughing, could hardly bear the permanent contact of such a tube; but Dr. Bouchut has found by experience that the mucous membrane of the larynx easily gets accustomed to external irritations, and that patients tolerate the tube very well. It is kept in for a day or two, until the phenomena of asphyxia have disappeared. The false membranes in the trachea are expelled through the tube by expectoration, and the seat of the disease may be directly acted upon, through it, by the insufflation of bicarbonate of soda, or by introducing proper instruments with which to clear the windpipe. In a subsequent paper, read at the last sitting of the Academy of Sciences, Dr. Bouchut establishes curious statistical facts concerning this disease. From the tables he has compiled it appears:—1. That croup is much more frequent in males than females. 2. That it commits its greatest ravages at the ages of two and three. 3. That from 1837 to 1853, the mortality by croup in France, for every 1,000 inhabitants, had nearly doubled. 4. That, from 1847 to 1853, it was five times larger than in 1836. 5. That the number of deaths by this affection, throughout all France, during the last thirty-two years, is 10,044. Now, as it cannot be proved that the cases of croup have increased during that period in a double or fivefold ratio, Dr. Bouchut attributes this increase of mortality to the practice of tracheotomy, which has become more frequent since 1840, in consequence of Dr. Trousseau's learned lectures on that operation. Dr. Bouchut is by no means led to infer from this circumstance, that tracheotomy is useless or hurtful; but he contends that it is had recourse to long before the patient's case is hopeless by any other means. If it were practised at the last stage, when the patient had become insensible, it might save a child exposed to the risk of all but certain death; but when performed while there are fits of suffocation with anæsthesia, it will cause the death of patients who might still have a chance of a spontaneous cure.

THE QUEEN'S UNIVERSITY IN IRELAND.
EXAMINATION FOR DEGREE OF M.D.

28th and 29th September, 1st and 2nd October, 1858.

ANATOMY.—Examiner, BENJAMIN GEORGE M'DOWEL,
M.D., T.C.D.

1. Mention the communications which exist between the portal venous system and the tributaries of the vena cava. What evidences are furnished by disease of such communications?
2. When the inferior vena cava is obliterated, by what channel can the blood of the lower extremities reach the right auricle?
3. What are the relations of the inferior vena cava? Enumerate its tributaries, and describe its course.
4. What dissection would you make to expose the internal maxillary artery in its first and second stages? Describe the relative anatomy of the parts exposed by this dissection.
5. Give an account of the epiglottis. Describe its uses, structure, microscopic characters, and relative anatomy.
6. Trace the portio dura nerve from its origin to its final distribution. What ganglion has been described in connexion with it? What branches of communication does that ganglion give off or receive? What effects have been observed as the result of injury or disease involving the trunk of that nerve?
7. Describe the medulla oblongata; define its limits, and trace its segments.
8. Classify the branches of the lumbar plexus, and trace them as far as their course lies within the iliac region.
9. Describe the course and distribution of the superior laryngeal nerve.
10. Mention the course and relations of the external iliac artery. Describe the steps of the operations for deligating it, according to the methods of Abernethy and Sir A. Cooper.
11. Mention the objects seen in the prostatic portion of the urethra.
12. Enumerate the commissural fibres of the brain from above downwards.
13. Describe the "great cerebral fissure" and the canal of Bichat. State their boundaries and the parts which they transmit.
14. Give a detailed account of the minute structure of the kidney.

Junior Class.

ANATOMY.—Examiner, BENJAMIN GEORGE M'DOWEL,
M.D., T.C.D.

1. Enumerate the bony boundaries of the nasal fossæ. Mention the openings found in its several walls, and the parts which they transmit.
2. Describe the mode of development of the vertebral column.
3. Enumerate the ligaments which connect, (1) the head to the atlas; (2) the head to the axis; (3) the atlas to the axis. Describe the motions which take place in these articulations.
4. Give an account of the structures which enter into the composition of the temporo-maxillary articulation.
5. Trace the course of the external carotid artery; mention its relations; enumerate and classify its branches.
6. Determine the extent of the upper and lower epiphyses of the humerus.
7. Enumerate the ligamentous connexions of the clavicle.
8. Enumerate the muscles which are attached to the os hyoides.
9. What is the direction, and what are the relations of the first stage of the arch of the aorta?

10. Describe the structure and the shape of the pericardium. Enumerate the vessels which pass in or out of the pericardium, and explain their relations to that membrane.

11. When a ligature is placed on the external iliac artery, mention the principal anastomosing channels by which the blood reaches the lower extremity.

12. Give a description of the surgical anatomy of the popliteal space.

13. Describe the surfaces and connexions of the os calcis and astragalus.

14. Give the boundaries of the glottis and of the rima glottidis, and contrast these openings.

PHYSIOLOGY AND STRUCTURAL ANATOMY.—Examiner,
BENJAMIN GEORGE M'DOWEL, M.D., T.C.D.

1. What are the solids excreted by the kidney; how are they separated; and what provision is made for their effectual removal?

2. Enumerate the glandular secretions which are poured out upon the gastro-intestinal mucous membrane, and describe more particularly the proper intestinal glands.

3. How is the depuration of the blood effected in the fœtus?

4. In what class of animals is the skin most efficient as an organ of respiration? Illustrate this.

5. What is the chief agent in chymification? Who first detected it? How would you prepare an artificial digesting fluid?

6. Describe a spinal nerve. By what physiologists were the functions of the spinal nerves first accurately determined?

7. Give an account of adipose tissue and of fat. State the composition and the sources of fatty matter. Mention the amount of fatty matter normally present in the blood?

8. Give a description of the cornea. Explain how its nutrition is effected.

9. Distinguish and describe the pigmentum nigrum, and the membrana pigmenti.

10. What are the functions of the laryngeal nerves? State the proofs furnished by disease and by experiments.

11. Describe the peculiarities of the hepatic circulation in the fœtus.

12. Describe the minute structure of the liver.

For Candidates proceeding under the older ordinance.

PHYSIOLOGY AND COMPARATIVE ANATOMY.
Examiner, BENJAMIN GEORGE M'DOWEL, M.D., T.C.D.

1. Describe the principal types of the nervous system in the vertebrata.

2. Describe the peculiarities of the articulations of the vertebræ in fishes, birds, and in ophidian and chelonian reptiles.

3. Mention some of the more remarkable characteristics of the osteology of the cetacea.

4. Describe the peculiarities of the circulation in insects.

5. Describe the structure of the skin and explain what are its functions.

6. Determine the limits of the true olfactory region.

7. Describe the cerebral connexions of the olfactory nerves.

8. Give the elements of which the encephalon of fishes is composed.

9. Describe the plan of the circulation in fishes.

10. Mention the peculiarities of the respiratory organs of birds.

SURGERY.—Examiner, MAURICE H. COLLIS, M.B.,
M.R.I.A., F.R.C.S., Surgeon to the Meath Hospital and County Dublin Infirmary.

A. 1. Describe the appearances produced by acute synovitis of the hip-joint in the early stage, give the

constitutional symptoms, and specify the treatment you would adopt to restore the joint to health. Follow an unsuccessful case to its termination, and explain the process of destruction in all its stages.

2. Contrast such a case with chronic morbus coxarius as to nature and seat of disease, signs and symptoms, stages, results, and treatment throughout.

B. 1. Describe the two varieties of phlebitis known as adhesive and suppurative; give examples of each.

2. What are varicose veins? How are they produced? Enumerate some of the plans proposed for their cure, and give reasons for or against their use.

C. Describe an ordinary case of compression of the brain with fracture. How may compression arise without a depressed fracture? What class of symptoms will enable you to distinguish concussion of the brain?

D. Select one from the following list of subjects, and detail the history, progress, and treatment of any case of the disease or injury which you have observed in hospital or elsewhere:—gun-shot wound; compound fracture of tibia; venereal linitis, with cutaneous eruption; penetrating wound of abdomen, or thorax.

MEDICINE.—Examiner, JOHN C. FERGUSON, A.M., M.B.

1. In the treatment of disease, what are the indications for, and contraindications to, general bloodletting?

2. State the causes, physical signs, and principles of treatment of pulmonary apoplexy.

3. Give the pathology, symptoms, and probable terminations of ramollissement of the brain.

4. State the means of determining whether a patient has been the subject of an apoplectic or epileptic seizure, both during and after the paroxysm.

5. What phenomena in the progress of fever are regarded as critical; and the value of each in forming prognosis?

6. State the symptoms that are usually regarded as characteristic in the premonitory fever of variola, scarlatina, and rubella; and the complications most frequently met with in each fever.

7. Enumerate the morbid products and changes of structure resulting from gastro-enteritis.

8. On what morbid condition of organs or tissues may that amount of dyspnoea termed asthma, depend for its causation?

MIDWIFERY AND DISEASES OF WOMEN AND CHILDREN.—Examiner, DR. HARVEY.

1. Describe the form, situation, connexion, and anatomical structure of the hymen. What is its most usual malformation, and what inconveniences result therefrom? In what condition are the remains of the hymen found in women who have borne children?

2. Enumerate the structures essentially entering into the formation of the ovum of a mammal. What is the most striking difference between a viviparous and an oviparous ovum, and how is the generative canal modified thereby? Give the measurements of the human ovum, germinal vesicle, and spot, respectively.

3. Give the relations of the antero-posterior to the transverse diameters of the brim, cavity, and outlet, respectively, in the normal female pelvis, and also in the deformity known as the ovate pelvis.

4. The expression, "Uterus and uterine appendages," frequently occurs in obstetric works, as though the uterus were the most important organ of the female generative apparatus. Is it so; or what is? and give proofs.

5. Explain the circumstances under which retroversion of the uterus takes place during pregnancy. State the period about which it occurs; its causes, dangers, and treatment.

6. At what period of gestation does auscultation become available for the purposes of diagnosis? Enumerate the chief points, exclusive of the indications of the existence of pregnancy, on which it affords infor-

mation to the practitioner; and explain especially its use as a guide to safe practice.

7. Detail, minutely, the steps of your management of a natural labour during the expulsion of the child, and thenceforward until you are easy to leave your patient.

8. You are called to a woman with a moderately-sized pelvis, who has been in labour of her first child for the last twelve hours. The os uteri is dilated, the membranes have given way, and the child's head is pretty low down in the cavity of the pelvis, but has made very little advance for the last five hours. The parietal bones are compressed and slightly overlapping with inconsiderable tumefaction of the scalp. Uterine action regular and strong; pulse 90, full but soft; skin perspiring; bowels open yesterday. She has passed water within two hours; mucous secretion of vagina natural in quantity and quality. What would be your present management of the case, and what are your anticipations as to its future progress and requirements?

9. In cases where an arm presents, and delivery is completed without artificial aid, describe how the object is accomplished.

10. A lady, the mother of eight children, who has generally had rapid labours, is subject to hæmorrhage, with alarming prostration, for several hours after delivery. What means should be adopted towards preventing a recurrence of this state of things at her next confinement?

11. Give the distinctive characteristics and diagnose between polypus uteri, prolapsus, and inversion, respectively.

12. At what age do the first teeth usually make their appearance in children; and when is dentition completed? Give the order in which they come up, as the time of shedding the first teeth. Describe the process by which they are removed.

CHEMISTRY.—Examiner, THOMAS H. BOWNET, Ph.D.

1. Describe the method of preparing, and the properties of, caustic potash.

2. Give the general characters of chemical affinity.

3. Describe the properties and the constitution of the oil of bitter almonds.

4. What is meant by the specific gravity of a body?

5. Mention the principal varieties of sugar, and the composition of them.

6. Describe the method of preparing, and the properties of, oxygen gas.

7. Mention the principal sources of heat.

8. Give in symbols the reaction that takes place when hydro-sulphuric acid gas is passed into a solution of persalt of iron.

9. Give the test for bile in urine.

10. What is the composition of urea; how may it be separated from urinae?

11. Give the tests for nitric, carbonic, and sulphuric acids, ammonia, mercury, magnesia, and manganese.

12. Write in symbols the formulae (with water of crystallization, if any) of the following salts:—sulphate of magnesia, nitrate of silver, alum, sulphate of lime, carbonate of soda, bisulphate of potash and calomel.

13. What is meant by the specific heat of a body?

14. Describe the method of preparing, and the properties of, oxalic acid.

15. Give a definition of an element.

ZOOLOGY.—Examiner, Professor W. H. HARVEY, M.D., F.R.S.

1. How may Mammalia be classified upon natural principles? Enumerate and characterize the orders into which you would divide them.

2. How do the bones of birds differ in structure from those of other vertebrates; and what partial exceptions are found in certain families of birds?

3. How do the Orders Marsupialia and Monotremata differ from each other; and how from all other vertebrates?

4. What are the general characters of a Lamelli-branchiate Mollusc? Give familiar examples of the class, and mention the orders into which it is divided.

BOTANY.

1. Describe the effect of vegetation on the atmosphere, and mention some plants whose action is exceptional.

2. State any facts you may know respecting the growth of Fungi on living animals; mentioning the modes in which Fungi are propagated and dispersed; and how the poisonous Agarics may be distinguished from the edible.

3. What obvious floral character will always distinguish a Rosaceous from a Ranunculaceous plant, however similar in appearance? Give the medical properties and examples of both orders.

4. What drugs are derived from the following Nat. Orders:—Papaveraceæ, Violaceæ, Piperaceæ, Umbelliferae, Polygonaceæ, Rubiaceæ, Cucurbitaceæ, Solanaceæ, Scrophulariaceæ, respectively.

MATERIA MEDICA, PHARMACY, AND MEDICAL JURISPRUDENCE.—Examiner, Dr. GREGG, Prof. R.C.S.I.

1. Describe the physical and chemical properties of starch, and its reputed alimentary value, its uses in medicine and surgery, the varieties of it used as articles of food, with the sources from which they are derived.

2. Enumerate the physical, chemical, and physiological qualities of strychnia.

3. Describe the sources and properties of gum arabic, and state the characters by which you would recognise good mucilage.

4. How is liquor potassæ prepared; what is its density and medium dose; and what are the reasons for the precautions directed by the Pharmacopœia for its preservation?

5. Enumerate the various therapeutic and poisonous actions of mercury, and the modes of administration by which they are severally produced.

6. Describe the differential properties of morphia, narcotine, and codeia,—physical, chemical, and physiological.

7. How many fluid ounces are contained in an imperial pint?

8. How would you proceed to discover prussic acid in the contents of the stomach?

9. What inquiries would you institute in the medical investigation of a charge of rape?

10. What are the best antidotes for the following poisons:—white arsenic, corrosive sublimate, soluble salts of lead and copper, sulphuric and oxalic acids, strychnia, and sulphuret of potassium?

11. Enumerate the various modes in which spirit drinking may cause death, with the corresponding appearances in the dead body.

12. Name the drugs, 1 to 10, placed before you, and the current adulterations of five of them.

Prescriptions.

Prescribe the following in unabbreviated Latin:—

1. Decoction, with tincture of bark, and sesqui carbonate of ammonia, &c., to be given in effervescence,—the dose to be repeated every fourth hour to the third time.

2. A diaphoretic mixture, containing aq. ammon. acet., sp. æth. nitros., nitre, and tartarized antimony,—one table-spoonful to be taken every hour and a-half.

3. Draughts, containing medicinal hydrocyanic acid, with a bitter infusion, and an aromatic tincture: one to be taken at mid-day four times a-week.

NATURAL PHILOSOPHY.—Examiner, JOHN STEVELLY, LL.D.

1. Two forces, each equivalent to 56 lbs., act at a point of a body, in directions which contain an angle of 120°: find their equivalent, and the direction in which it acts.

2. A cylinder of lead, which originally weighed 10 lbs., has a cylindrical hole drilled out along its length, whose axis is parallel to the axis of the cylinder, and at the distance d inches from it; the remaining mass of lead weighs 7 lbs.: required the position of its centre of gravity.

3. A farmer has a horse and an ass; he wishes to yoke them by a bar to the same load; he has found that at an ordinary pace of two and a-half miles an hour, the horse is strong enough to draw five and a-half times as much weight as the ass; at what distance from the point of application of the load must he attach each in order to give to each his part of the load proportioned to his strength?

4. Explain, clearly, the principle on which a machine enables a smaller force to counterpoise by its aid a greater, and enunciate and prove the proposition which contains the principle by which the ratio of the equilibrating forces on any machine may be determined.

5. Explain by a diagram what part of the total force of gravity accelerates the motion of a common pendulum along its circular path; give the general expression for its value as the pendulum moves into various positions; and give the expression for that part of the pressure on the axis of suspension which depends upon the weight of the pendulum.

6. Explain the principle of the composition of velocities, and point out the distinction between it and the composition of forces; show also in what respects they agree.

7. A certain dynamic force, which acts uniformly for one minute and six seconds, produces a velocity of twenty-two feet per second in a body upon which it acts; give the number which expresses the intensity of that force, and explain clearly what that number means.

8. Explain, fully, the method of taking the specific gravity of a body which is lighter than distilled water; also the analogous method of taking the specific gravity of quicksilver.

9. Suppose the specific gravity of hydrogen gas to be 0.0694 to atmospheric air 1.0000, and that 100 cubic inches of common air weigh 30.5 grains, what will be the ascending power of a balloon which contains 27,000 cubic feet of that gas?

10. Explain how the pressure of the atmosphere on any given day, and at any place, on a square inch of surface is obtained.

11. Explain what is meant by the dispersion of light; show how it affects the formation of images by lenses; and explain how a combination of lenses is used to correct it.

12. Give the chief arguments by which it is proved that the earth is a mass of nearly a spherical shape.

13. Describe the electrophorus, and explain the principle of its action.

14. Describe, clearly, the phenomena and laws which govern magnetic induction.

15. Explain the method by which Gay Lussac determined the density of atmospheric steam.

MODERN LANGUAGES.—Examiner, Dr. BENSBACH.

Translate into French, German, or Italian, a passage from Carpenter's *Zoology*.

Translate from French into English, one of three extracts:—from Boileau—*L'Art Poétique*; Chevallet—*Origine et Formation de la Langue Française*; and Cuvier—*Le Règne Animal*.

Translate from German into English one of two extracts.

Translate from Italian into English, one of two extracts:—from Petrarca—*Trionfo della Forma*, and Machiavelli—*Discorsi sopra la prima Deca di Tito Livio*.

ASSOCIATION OF THE FELLOWS AND LICENTIATES OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS, IRELAND.

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President—Sir Henry Marsh, Bart., M.D., M.R.I.A.
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Treasurer—Dr. George A. Kennedy.
Secretary—Dr. William Moore.

Meetings of the Association are held in the College Hall on the first Wednesday of every month, from October to June, inclusive, at 8 o'clock, P.M.

TABLET TO THE MEMORY OF SIR ASTLEY P. COOPER, BART.—A very handsome tablet to the memory of this illustrious surgeon, has been fixed in Guy's Hospital. It is formed of the purest Carrara statuary marble upon a dove-marble back.

In Memory of
SIR ASTLEY PASTON COOPER, BART.
for twenty-five years
Surgeon of this Hospital,
who died on the 12th February, 1841,
aged 73 years.
By his own particular desire,
his remains have been deposited
in the vault below,
within the precincts of the institution
in which he received his professional education,
and which,
having contributed to the development,
enjoyed the benefits, and shewed the lustre
of those remarkable talents
which won for the professor
the undisputed title of
the first surgeon of his age.
To mark the resting place of
so distinguished a man,
and to evince their sense of
his services to the hospital,
the Governors
have caused this tablet to be erected,
on the occasion of
the repair and decoration of the Chapel,
in the year of our Lord, 1858.

SALE OF DR. CANE'S LIBRARY AT KILKENNY.—The late Dr. Cane, of Kilkenny, has been well known in literary circles as a collector of books and pamphlets, written on subjects of Irish history. His work on the Williamite and Jacobite wars, on which he was engaged previous to his untimely removal, would have been a rich addition to the library of the Irish historian. It is, however, unfinished, and beside the five or six numbers which have gone through the press, not even a page in manuscript is to be obtained, as he had not amplified his copious notes. The entire number of books offered for sale was about 850 lots, and about 1000 works. About 400 were works of general literature—the remainder consisted of Irish history, and publications respecting Irish antiquities. The chief attraction of the sale was an unique volume of the utmost interest, consisting of the most complete collection in existence of the original black letter broadside Proclamations of the Irish government, commencing with the year 1673, and extending through the reigns of Charles II., James II., William and Mary, Queen Anne, and George I., to the year 1716. These, in themselves, form a noble folio volume of 737 pages, worthy of the chief place in some public library. But what adds to the great value of the collection is, that the magistrate by whom they were collected, Josiah Haydock, Esq., Alderman of the city of Kilkenny, has, in his own hand, not only indexed them, but also, on the backs and at foot of the broadsides, written out from day to day, a detailed chronicle of the events of the stirring times comprised within the dates May 13th, 1679, and July 1st, 1690. After some spirited bidding, it was knocked down to the Rev. James Graves, who purchased it for the Marchioness of Ormonde for £76.—*Waterford Mail.*

CORONERS — PAYMENT OF MEDICAL WITNESSES.—We (*Boyle Gazette*) are glad to find that this matter at length brought to a close. This pleasing information (so far as medical gentlemen are concerned) was obtained in reply to a letter addressed to the Under-Secretary of State by Dr. Swayne, of Carrick-on-Shannon, who complained that he was summoned by a Coroner of the county Roscommon to attend as a medical witness on an inquest, but who declined to give the fee, on the grounds 'that the grand jury of the county refused to pay that fee to him.' The following is a copy of a letter which Dr. Swayne received in reply:—

"Dublin Castle.

"Sir—I am directed by the Lord Lieutenant to acknowledge the receipt of your letter, and to inform you that the Solicitor-General is of opinion, that it is the duty of the Coroner to pay the medical man upon the occasion of his giving his evidence the fee which the law allows, and to take from the medical man a proper receipt. It is a very irregular practice which seems to prevail, viz., not paying the medical witness until the amount of the fee shall have been received from the grand jury.

"The fee payable for an analysis under the Statute of the 9th and 10th Victoria, cap. 37, is not included in the above observation.—I am, sir, your obedient servant,

"W. A. LALOR.

"A. C. Swayne, Esq. Surgeon,
"Carrick-on-Shannon."

CERTAIN OF THE HOSPITALS AND HOSPICES OF PARIS are to be removed into the country. As the where, in large towns, habitations have sprung up, surrounded these abodes of the indigent, which were originally built on their outskirts. Thus, the *Hospice des Ménages* is to be transferred to Issy; at present situated in the quarter of Thomas d'Aquin, one of the most densely populated in Paris. The *Hospice St. Perrine* is also to be transferred to Auteuil. The famous *Hôtel-Dieu* also, the most ancient of all the Hospitals of Paris, must soon come under consideration. The state of parts of this ancient building requires immediate attention; there is danger, indeed, lest part of it should actually give way.

DUBLIN UNIVERSITY.—The Board of Trinity College have elected **BENJAMIN GEORGE M'DOWD, Esq., M.D., T.C.D.**, to the post of Professor of Anatomy and Physiology to the University, vacant by the death of the late Dr. Harrison.

His Excellency the Lord Lieutenant has been pleased to appoint **ROBERT ADAMS, Esq., M.D.**, to be a Member of the Senate of the Queen's University, in the room of the late Sir P. Crampton, Bart.

DEATHS.

September 29, at Carlsbrooke, five days after reaching India, **Charles Henry Torvey Esq., Assistant Surgeon, 30th Regt.**

September 30, at Downpatrick, **Robert Ford, Esq., M.D., Surgeon to the Downpatrick Infirmary.**

August 18, at Shahjehanpore, of ague, **Arthur Stretton, Esq., Assistant Surgeon 1st Battalion 60th King's Own Royal Rifle Regt.** 29th year, youngest son of Henry Stretton, Esq., of the Ten Turnham-green, near London.

DUBLIN:

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University of Dublin.

SCHOOL OF MEDICINE AND SURGERY.

UNIVERSITY PROFESSORS.

Regius Professor of Physic—WILLIAM STOKES, M.D.
University Professor of Surgery—J. W. CUSACK, M.D.

SCHOOL OF PHYSIC IN IRELAND.

Incorporated 25 Geo. III., c. 42, & 40 Geo. III., c. 84.

PROFESSORS ON THE UNIVERSITY FOUNDATION OF TRINITY COLLEGE.

Anatomy and Physiology—BENJAMIN G. M'DOWEL, M.D.
Surgery—ROBERT WILLIAM SMITH, M.D.
Chemistry—JAMES APJOHN, M.D.
Botany—WILLIAM HARVEY, M.D.

THE KING'S PROFESSORS ON THE FOUNDATION OF SIR PATRICK DUN.

Institutes of Medicine—ROBERT LAW, M.D.
Practice of Medicine—JOHN BANKS, M.D.
Materia Medica—JONATHAN OSBORNE, M.D.

PROFESSORS OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS.

Midwifery—FLEETWOOD CHURCHILL, M.D.
Medical Jurisprudence—THOMAS BRADY, M.D.

MATRICULATION.

All Students in Medicine of the University of Dublin must be matriculated by the Senior Lecturer of Trinity College; but no such student shall be obliged to have his name on the books of said College, or to place himself under the tuition of one of the Tutors of the College; nor is such matriculated Student liable to any academical duties, unconnected with the School of Medicine and Surgery, unless he desire to obtain a Degree in Medicine or a Diploma in Surgery.

Matriculated Students, who are not Graduates of the University in Arts or Medicine, are admissible to Examination for the Licence of the King and Queen's College of Physicians, but are not eligible to a Fellowship in that College, or to the Professorships on the University Foundation in the School of Physic.

A Fee of Five Shillings is made payable by the Act 40 Geo. III., c. 84, s. 34, on the matriculation of each student.

DEGREES IN MEDICINE.

1. Bachelor in Medicine.

A candidate for the degree of Bachelor of Medicine must be a Graduate in Arts, and may obtain the degree of Bachelor of Medicine at the same commencement as that at which he received his degree of B.A., or at any subsequent commencement, provided the requisite medical education shall have been completed.

The Testimonium of the M.B. degree will contain the following certificate:—

“Testatur A.B. sedulam operam medicinæ navasse, et examinationes coram professoribus feliciter sustinuisse.”

The medical education of a Bachelor of Medicine is of four years' duration, and comprises attendance on the following courses of lectures:—

Courses of Six Months' duration, or longer.

Anatomy and Physiology—Every day.

Practical Anatomy, with Anatomical Demonstrations—Every day.

Surgery—Three days in each week.

Chemistry—Four days in the week.

Materia Medica and Pharmacy—Four days in the week.

Institutes of Medicine and Pathology—Four days in the week.

Practice of Medicine—Four days in the week.

Midwifery—Four days in the week.

Clinical Lectures—Attendance on Sir Patrick Dun's Hospital during nine months, with three consecutive courses of Clinical Lectures, each of three months' duration. These lectures are delivered by the Professors, at twelve o'clock. Also, nine months' attendance on some general Hospital in Dublin, approved of by the Board, in which clinical instruction in Medicine and Surgery is delivered.

Courses of Three Months' duration.

Botany—In the last week of April, and continued during the months of May, June, and July.

Practical Chemistry.

Medical Jurisprudence

A year's attendance, or an *annus medicus* in the School of Physic, may be kept in three ways:—
1. By attending at least two, or not more than three, of the foregoing courses of lectures, which are of six months' duration. 2. By attending one course of six months', and two of three months' duration. 3. By nine months' attendance on Sir Patrick Dun's Hospital, and Clinical Lectures, together with one course of lectures of six months', or, in lieu thereof, two courses of three months' duration.

Three of these courses, at the discretion of the candidate, may be attended in the University of Edinburgh.

The course of Practical Anatomy and Anatomical Demonstration does not count as a course of lectures.

Every pupil, before he be admitted to attend the Clinical Lectures, must pay the Professor £3 3s. for each three months' course of lectures, and shall enter his name with the Treasurer of Sir Patrick Dun's Hospital, and pay him ten guineas, unless he shall have been matriculated in the University of Dublin, or of Oxford, or of Cambridge, and shall have continued his studies in Arts, under a Tutor, in one of the said Universities, for the space of *two years at least*, in which case he shall pay the sum of £3 3s. to such Treasurer for the first half-year, with a proportionate sum for any longer period.

The examination for the degree of Bachelor of Medicine is conducted by the Regius Professor of Medicine, the Professor of Surgery in the University, and the Professors of the School of Physic in Ireland.

The days of graduation are Shrove Tuesday and the first Tuesday in July. The medical examinations terminate on the Tuesday of the preceding week. Candidates having *completed* their medical education can procure from the Registrar of the Professors of the School of Physic a schedule testifying to the correctness of the details of the attendance on lectures, &c., on producing which a *Licent ad Examinandum* is issued by the Provost and Senior Fellows.

2. Doctor in Medicine.

A Doctor in Medicine must be M.B. of at least three years' standing, and must perform exercises for the degree before the Regius Professor of Physic, in accordance with the rules and statutes of the University.

This degree entitles the holder to vote as a University Elector, under the Act 2 & 3 Wm. IV., c. 88, at all elections of Members to represent the University in Parliament.

The Fees payable to the University for these degrees are as follow:—

Bachelor of Medicine	£11 15 0
Doctor of Medicine.....	22 0 0

DIPLOMA IN SURGERY.

The Diploma in Surgery may be obtained by such students as are matriculated in Medicine, and

have completed at least one year in Arts, on the following conditions:—

1. To complete one year in Arts, it shall be necessary to have answered at least one Examination subsequent to the Junior Freshman year, or to have completed the Junior Freshman year only by passing the Michaelmas Examination of that year, and keeping one previous Term, either by Lectures or by Examination.

2. Students who have not passed an Examination in the Senior Freshman year will be required to attend one course of Lectures in Logic. Students who have not passed the Junior Sophister year of the Undergraduate Course will be required to attend one Course of Lectures on Mechanics with the Assistant to the Professor of Natural Philosophy.

3. Students so qualified will be admitted to Examination for the Diploma in Surgery, as soon as they shall have completed the prescribed Curriculum.

4. This Curriculum shall extend over a period of four years, and shall comprise attendance upon the following Course of Lectures in the School of Physic in Ireland:—

Anatomy and Physiology.....	Three Courses.
Demonstrations and Dissections, Three Courses.	
Theory and Practice of Surgery, Three Courses.	
Practice of Medicine, ...	One Course.
Chemistry, ...	One Course.
Materia Medica, ...	One Course.
Midwifery, ...	One Course.
Practical Chemistry, ...	One Course each,
Botany, ...	of three months'
Medical Jurisprudence, ...	duration.

Four of the above-named Courses, together with a Course of Demonstrations and Dissections, may be attended in any School of Medicine recognised by the Board.

Also, attendance for three Sessions, each of nine months' duration, on the practice of any of the following Hospitals, together with attendance on the Clinical Lectures on Medicine and Surgery then delivered:—

1. Richmond, Whitworth, and Hardwicke Hospitals; 2. Meath Hospital; 3. Steevens' Hospital; 4. Jervis-street Infirmary; 5. City of Dublin Hospital; 6. Mercer's Hospital; 7. St. Vincent's Hospital.

Of the Courses of Lectures, which are of six months' duration, not more than three can be attended during any one Session.

5. Candidates for the Diploma, who have complied with the foregoing regulations, must pass an Examination before a Court of Examiners, consisting of the Regius Professor of Physic, the University Professor of Surgery, and the Professors of Anatomy, Surgery, Chemistry, Midwifery, and Botany, of the School of Physic.

The Examination of each Candidate will be divided into two parts, one of which shall be devoted to Anatomy and Physiology, Surgical Ana-

tomy, Chemistry, Materia Medica, and Toxicology, the other to the Theory and Practice of Surgery, Operative Surgery, the Practice of Medicine, and Midwifery.

6. Candidates for the Diploma must submit their Certificates and Testimonials of qualification to the Regius Professor of Physic and to the Professors of Surgery, who shall sign the Chart necessary to be laid before the Senior Lecturer and Registrar, previous to the issuing of the *Licet ad Examinandum* to the Professors.

A Fee of £2 10s. is charged on taking the Diploma.

The following Courses of Lectures and of Clinical Study are recommended to Students intending to qualify for the Public Service in the departments:—

1. Ophthalmic Surgery.
2. Military Surgery.
3. Pathological Anatomy.
4. Comparative Anatomy and Natural History.
5. Attendance in an Hospital for the treatment of the Insane.

PRIVILEGES OF MATRICULATED MEDICAL STUDENTS.

The Medical Library at Sir Patrick Dun's Hospital is open on Tuesdays and Fridays, at three o'clock, for the delivery of books to Students, conformably with the regulations of the College of Physicians.

The College Herbarium is open to the public on Wednesdays and Fridays during Term, from 11 to 2 o'clock. Any persons desirous of verifying specimens may obtain admission on Tuesdays and Thursdays, during the same hours, by giving notice to the Curator.

The Lectures on Natural Philosophy, the Museum of Natural History, and the Botanic Gardens of the University are also open to Matriculated Students.

Medical Students, being Junior or Senior Sophisters on the College Books, and in attendance on two of the winter courses of Medical Lectures, are exempted from the Classics of the Junior Sophister year, and from one of the three optional Courses (Mathematical Physics, Experimental Physics, or Classics) of the Senior Sophister year. To obtain this privilege it is necessary that the Student be Matriculated in Medicine, and that the proper certificates of his attendance on Medical Lectures be submitted to the Senior Lecturer.

Students in Arts, who are also matriculated in Medicine, having their names on the College Books will be permitted to attend one Course free of expense with each of the University Professors.

No Testimonium, or Certificate of Attendance, will be issued to such Students until after they have proceeded to their first degree in Medicine. On the application for the *Licet ad Examinandum*, the Professors will transmit, direct to the Registrar of the School of Physic, the names of those Students who have qualified themselves. Should the Student who has had the privilege of free attendance desire to obtain an official Testi-

monium, before proceeding to his Medical degree, he must, on obtaining it, pay the Professor the usual fee.

By the Act, 40 Geo. III., c. 84, the several Lecturers and Professors of the School of Physic are bound during each Medical Session to return to the Senior Lecturer the names of such Students as have attended their Lectures.

The Queen's University in Ireland,

The Centre or Head of the Provincial Colleges of Belfast, Cork, and Galway, each of which possesses a Faculty of Medicine.

THE SENATE; PROFESSORS, AND EXAMINERS.

Chancellor—The Right Honorable George William Frederick, Earl of Clarendon, K.G., G.C.B., &c.

Vice-Chancellor—The Right Honorable Maziere Brady, M.R.I.A., &c.

Senate—His Grace Richard, Archbishop of Dublin, D.D., M.R.I.A., &c.; the Right Hon. William, Earl of Rosse, K. St. P., F.R.S.; the Right Honorable Thomas Spring, Baron Montague of Brandon, M.A., F.R.S., Comptroller of the Exchequer; the Right Honorable Francis Blackburne, LL.D., M.R.I.A.; Lord Justice of Appeal, Vice-Chancellor of the University of Dublin; the Right Honorable David R. Pigot, M.R.I.A., Lord Chief Baron of the Exchequer, &c.; the Right Honorable Sir Thomas Wyse, K.C.B., Ambassador at Athens; the Rev. P. Shuldharn Henry, D.D., President, Queen's College, Belfast; Sir Robert Kane, M.D., F.R.S., M.R.I.A., &c., President, Queen's College, Cork; Edward Berwick, Esq., President, Queen's College, Galway; Sir Richard Griffith, Bart., LL.D., M.R.I.A., Commissioner of Public Works; Dominick J. Corrigan, M.D., M.R.I.A., Physician in Ordinary to the Queen in Ireland; Lieut.-Col. Thomas Askew Larcom, R.E., C.B., LL.D., F.R.S., M.R.I.A., &c.; James Gibson, A.M., M.R.I.A.; Robert Andrews, Q.C., LL.D.; the Right Honorable James Henry Monaghan, Chief Justice of the Common Pleas; Robert Adams, A.M., M.D., &c.

EXAMINERS, elected 19th July, 1858.

Greek.—Charles Mac Douall, A.M., Professor, Q.C., Belfast.

Latin.—Richard Blair Bagley, A.M., Professor, Q.C., Galway.

English Literature.—William Rushton, A.M., Professor, Q.C., Cork.

Logic and Metaphysics.—Rev. James M'Cosh, LL.D., Professor, Q.C., Belfast.

Mathematics.—George J. Allman, LL.D., Professor, Q.C., Galway.

Natural Philosophy.—John Stevelly, LL.D., Professor, Q.C., Belfast.

Chemistry.—Thomas H. Rowney, Ph.D., Professor, Q.C., Galway.

Anatomy and Physiology.—George Benjamin M'Dowell, M.D., F.R.C.S.I.

Zoology and Botany.—William H. Harvey, M.D., Professor, T.C., Dublin.

Modern Languages.—Augustus Bensbach, M.D., Professor, Q.C., Galway.

Mineralogy, Geology, and Physical Geography.—William King, Professor, Q.C., Galway.

Jurisprudence and Political Economy.—D. Caulfield Heron, LL.D., Professor, Q.C., Galway.

Law.—Echlin Molyneux, A.M., Professor, Q.C., Belfast.

Civil Engineering and Surveying.—James Thompson, A.M., Professor, Q.C., Belfast.

Agriculture.—Thomas Skilling, Professor, Q.C., Galway.

Celtic Languages.—Owen Connellan, Esq., Professor, Q.C., Cork.
Medicine.—John C. Ferguson, A.M., M.B., Professor, Q.C., Belfast.
Surgery.—M. H. Collis, M.B.
Materia Medica, Pharmacy, and Medical Jurisprudence.—T. Geoghegan, M.D.
Midwifery, and Diseases of Women and Children.—Jos. R. Harvey, A.B., M.D., Professor, Q.C., Cork.

PROFESSORS OF THE QUEEN'S UNIVERSITY IN THE SEVERAL QUEEN'S COLLEGES.

PROFESSOR OF	BELFAST.	CORK.	GALWAY.
Greek	Chas. Mac Douall, A.M.	John Ryall, LL.D., V.P.Q.C.	William Nesbitt, A.M.
Latin	Rev. Chas. F. Bechet, R.D.	Bunnell Lewis, A.M.	Richard Blair Bagley, A.M. Q.C.
History and English Literature	Rev. James Craik, A.M.	William Rushton, A.M.	Joseph O'Leary, Esq. V.P.Q.C.
Logic and Metaphysics	Rev. James McCosh, LL.D.	George S. Read, A.M.	Thos. Wm. Moffet, LL.D.
Mathematics	Peter Guthrie Tait, A.B.	George Boyle, LL.D., F.R.S.	Geo. Johnson Allan, LL.D.
Natural Philosophy	John Steavely, LL.D.	John England, A.B.	Arthur H. Curtis, A.M.
Chemistry	Thomas Andrews, M.D. F.R.S., M.R.I.A., V.P.Q.C.	John Blyth, M.D.	Thomas Henry Rowney, Ph. D.
Anatomy and Physiology	Hugh Currie, A.M., M.D., L.R.C.S.I.	Joseph H. Corbett, M.D., Q.U., L.R.C.S.I.	Charles Croker King, M.D., Q.U., F.R.C.S.I., M.R.I.A.
Natural History	George Dickie, M.D.	Joseph Wray Greene, Esq.	Alexander G. Melville, M.D., M.R.C.S.E., M.R.I.A.
Modern Languages	Mathias J. Fraga, Ph. D.	R. De Vericour, D. es L.	Augustus Benbach, M.D.
Mineralogy and Geology	Wyllie T. C. Thomson, LL.D.	Robert Harkness, F.R.S.E., F.G.S.	William King, Esq.
Jurisprudence & Political Economy	Thos. Ed. Cliffe Leslie, LL.B.	Richard Horner Mills, A.M.	D. Canfield Heron, LL.D.
English Law	Echlin Moynaux, A.M.	Michael Barry, M.R.I.A.	Hugh Law, A.B.
Civil Engineering	James Thomson, A.M.	Alexander Jack, A.B., C.E.	W. Bindon Blood, A.B., C.E.
Surveyors	John F. Hodges, M.D.	Edmund Murphy, A.B.	Thos. Skilling, Esq.
Celtic Languages	John O'Donovan, LL.D., M.R.I.A.	Owen Connellan, Esq.	John O'Boirne Grove, A.B., Q.U.
Practice of Medicine	John Creery Ferguson, A.M. M.B., Hon. F.K. & Q.C.P.	Denis C. O'Connor, A.B., M.D.	Nich. Colahan, M.D., F.R.S.E.
Practice of Surgery	Alexander Gordon, M.D.	Denis B. Brien, M.D.	Jas. V. Browne, A.B., M.D., L.R.C.S.I.
Materia Medica	James Seaton Reid, M.D.	Geo. Purcell O'Leary, M.D.	Simon M' Coy, F.R.C.S.I.
Midwifery	William Burden, M.D.	Joshua R. Harvey, A.B., M.D.	Richard Delaney, M.D., V.P., Dub. Obst. Society.

G. JOHNSTONE STONEY, A.M., M.R.I.A.,
Secretary.

The Queen's University Office,
Dublin Castle, September, 1858.

DEGREES IN MEDICINE.

1st.—Every candidate for the degree of M.D. shall procure a certificate from the Council of one of the Queen's Colleges, that he has passed a full examination in the subjects of study prescribed in the course of Matriculation for Arts, and has been

admitted a matriculated student of the College in the Faculty of Medicine.

Matriculation Examination.—Greek: Xenophon, the Anabasis, Book I.; Grammar.—Latin: One of the following authors:—Virgil, *Æneid*, Book I.; Cæsar, *Gallie War*, Book V.; Retranslation from English into Latin, of portions of Cæsar.—English: Grammar and Composition.—Mathematics: Arithmetic and Algebra; the First Four Rules of Arithmetic; Vulgar and Decimal Fractions; the Rule of Three; Addition, Subtraction, Multiplication, and Division of Algebraical Quantities; Simple Equations; Geometry, Euclid, Book I.—History and Geography:—History: Outlines of Grecian and Roman History; Geography: Outlines of Ancient and Modern Geography. Students who do not intend to compete for honors may postpone their matriculation to any period of their course.

2nd.—The Curriculum of Medical Instruction shall extend over a period of at least four years, and shall be divided into two periods of at least two years each.

3rd.—The first period shall comprise attendance on the following courses of medical lectures:—Chemistry, Botany and Zoology, Anatomy and Physiology, Practical Anatomy, *Materia Medica* and Therapeutics, six months each.

4th.—The second period shall comprise attendance on the following courses of medical lectures:—Anatomy and Physiology, Practical Anatomy, Theory and Practice of Surgery, Midwifery and Diseases of Women and Children, Theory and Practice of Medicine, six months each; Medical Jurisprudence, three months.*

5th.—In addition to the above courses of lectures, candidates shall have attended, during the first period of the above curriculum—Practical Chemistry in a recognised laboratory, three months; Medico-Chirurgical Hospital, recognised by the Senate, containing at least sixty beds, together with Clinical Lectures therein delivered, at least two each week, six months.

6th.—And during the second period—Practical Midwifery at a recognised midwifery hospital, with the Clinical Lectures therein delivered, for a period of three months, in an hospital containing not less than fifteen beds; Practical Pharmacy, three months; Medico-Chirurgical Hospital, with Clinical Lectures, eighteen months.

7th.—Candidates, before being admitted to the degree of M.D., shall pass two examinations; the first examination comprising the subjects of the first period of the curriculum; the second comprising subjects of the second period of study. It

* The 25th of November in each year is the last day of entering for the six months' course of lectures in the above curriculum. All the lectures are recognised by the Queen's University in Ireland; by the Universities of London, Glasgow, Aberdeen, and St. Andrew's; the Colleges of Surgeons of Dublin, Edinburgh, and London; by the Apothecaries' Companies; by the Army, Navy, and East India Medical Boards, &c., &c.

shall be competent for students to present themselves for their first examination at the termination of the first period of the curriculum, or at any other period to be fixed by the Senate, previous to their undergoing the second examination.

8th.—By the Charter of the Queen's University, candidates are required to have attended at least one-third of the courses of Medical Lectures in some one of the Queen's Colleges. For the remainder of the courses of medical lectures, authenticated certificates will be received from the Professors or Lecturers in Universities, Colleges, or Schools, recognised by the Senate of the Queen's University in Ireland.

9th. Candidates will also be required to have attended, in some one of the Queen's Colleges, lectures on one modern language, for six months, and lectures on Natural Philosophy for six months.

10th.—The examinations will be conducted principally by printed papers, to which written answers shall be given; but the examiners shall also be at liberty to add such *viva voce* examination on the subjects of the written paper, and to call for such demonstrations and experiments, as they may deem necessary.

11th.—The above regulations will be binding on all students commencing their medical studies on or after the 1st October, 1852; but students already engaged in their medical studies are at liberty either to complete their courses according to the ordinances of the 30th June, 1850, or according to the present ordinance.

King and Queen's College of Physicians in Ireland.

President—Sir Henry Marsh, Bart.

Censors and Inspectors of Apothecaries' Shops—

Dr. Aquilla Smith, *Vice-President*; Dr. Henry Kennedy, Dr. Mayne, Dr. A. Hudson.

Treasurer—Dr. Henry Law Dwyer.

Registrar—Dr. William Edward Steele.

Librarian—Dr. George A. Kennedy.

Professor of Midwifery—Dr. Fleetwood Churchill.

Professor of Medical Jurisprudence—Dr. Thomas Brady.

Examiners in Midwifery—Dr. Wm. O'B. Adams, Dr. H. L. Dwyer, Dr. J. Ringland.

Candidates for the Licence, who have completed the following course of education, are admissible to examination:—Anatomy, Chemistry, Practice of Medicine, Materia Medica, Institutes of Medicine, Midwifery, Demonstrations and Dissections, of each six months; Botany, Medical Jurisprudence, of each three months; Medico-chirurgical Hospital two years and a half; and Lying-in-Hospital, six months. Graduates in medicine of any University in the United Kingdom, and Surgeons of four years' standing or upwards, are admissible to examination on producing their diplomas. Surgeons under four years' standing are required to have

attended Botany, Institutes of Medicine, and a Lying-in Hospital. Candidates are required to undergo two days' examination on the above subjects, except medical graduates and surgeons of seven years' standing, who are examined in the subjects of the second day only—viz., Practice of Medicine, Institutes of Medicine, and Midwifery. Surgeons who are A.B.'s in addition to these subjects, are examined also in Botany and Materia Medica. Members of any Apothecaries' Company are ineligible for admission to the licence. Licentiates of three years' standing, or of one year, if forty years of age, who are graduates of the Universities of Oxford, Cambridge, or Dublin, are alone eligible for election to the fellowship. Fee for the licence, £30. Fee for the fellowship, £20.

Royal College of Surgeons, Ireland.

President—James W. Cusack.

Vice-President—Christopher Fleming.

Secretary to the College—Edward Hutton.

Council—Arthur Jacob, Thomas E. Beatty, Wm. Hargrave, Andrew Ellis, Robert C. Williams, Robert Adams, James Barker, William Colles, John H. Power, Hans Irvine, J. S. Hughes, Edward Hutton, Robert Pentland, Samuel G. Wilmot, A. E. Tabuteau, Thomas L. Mackesy, A. P. Bannon, Peter Shannon, Rawdon Macnamara.

Secretary to the Council—H. Mausell.

Registrar—J. Brennen.

Court of Examiners—Josiah Smyly, R. Tuohill.

Thomas Byrne, M. H. Stapleton, Richard G. H. Butcher, B. W. Richardson, Edward A. Stoker.

Examiners in Midwifery—Wm. Jameson, Robt. Johns, Jerome Morgan.

PROFESSORS.

Anatomy and Physiology—Dr. Jacob.

Descriptive Anatomy—Dr. J. H. Power and Dr. Bevan.

Surgery—W. H. Porter and W. Hargrave, Esqrs.

Medicine—Dr. C. Benson.

Chemistry—Dr. W. Barker.

Materia Medica—Dr. R. C. Williams.

Midwifery—Dr. Sawyer.

Medical Jurisprudence—Dr. T. G. Geoghegan.

Botany—Dr. A. Mitchell.

Practical Chemistry—Dr. Barker.

Comparative Anatomy—Dr. Jacob.

Regius Professor of Military Surgery—Joliffe Tufnell, Esq.

Logical and Inductive Science (for the Army Medical Department)—Dr. John Murray.

The Royal College of Surgeons in Ireland grants two different Diplomas—one conferring the rank of Fellow, and the other that of Licentiate. Fellows of the College are members of the Corporation, and are admitted by examination.

Fellowship—The candidates for the Fellowship

must be twenty-five years of age, and if not a graduate in Arts of some University, must answer a classical examination, which is generally confined to the principal books read for entrance into Dublin University. He must have been six years engaged in professional study, three of which must have been in Dublin; and he must also have been a house surgeon or dresser in an hospital. He is required to attend lectures on anatomy and physiology, and on surgery, with dissections, during three seasons; chemistry during two; and practice of medicine, materia medica, midwifery, medical jurisprudence, comparative anatomy, natural philosophy, and botany for one course each. His hospital attendance must be three years at least. Bachelors of Arts, after five years study, are admitted to examination on compliance with the above regulations, and Licentiates of the College of ten years' standing are also admitted, although they may not have been educated in strict conformity with them.

Letters Testimonial.—The candidate for Letters Testimonial is required to become a Registered Pupil, and to pass a classical examination. He is also required to prove that he has studied for three years in the metropolitan schools (nine months in each year), and for a fourth year either there or any where else, where he might have obtained professional information. His hospital attendance is by the bye-law declared to be three years "where clinical instruction is given," and all the Dublin hospitals are recognised. Credit is given for attendance on provincial hospitals, but it is expected that while the pupil is in attendance on lectures in Dublin, he shall at the same time attend an hospital there. Candidates for Letters Testimonial are also required to prove that they have attended three courses of lectures on anatomy and physiology, surgery, and practical anatomy (being demonstrations with dissections), two courses on chemistry, and one course on the practice of medicine, materia medica, midwifery, and medical jurisprudence.

Candidates both for the Fellowship and Letters Testimonial are examined on the practice of Medicine and Pharmacy as well as on Surgery. The diploma is a full qualification as a General Practitioner, entitling the holder of it to be appointed to county infirmaries, fever hospitals, dispensaries, poorhouses, and all other medical charities; and Licentiates of the College can dispense medicines to their own patients, but they cannot keep open shops, or retail drugs, or compound the prescriptions of other practitioners, without the licence of the Apothecaries' Company. Both Fellows and Licentiates are authorized by law and permitted by the charter, to compound and dispense medicines for their patients in the hospitals, dispensaries and poorhouses to which they are attached. None but Fellows and Licentiates of this College are eligible to be appointed Surgeons of County Infirmaries in Ireland.

The College of Surgeons of Ireland is empowered by charter to grant a diploma in Midwifery to its own Fellows and Licentiates only, and does not recognize any of them as midwifery practitioners, or mark them as such in the printed list of the College, unless they have had that diploma granted to them.

Certificates granted by professors in Universities which do not receive the certificates granted by the professors in the College of Surgeons, are not recognised as qualification from Candidates for either of the diplomas.

Returns of the names of those who have entered to attend lectures are required to be forwarded to the College by professors and lecturers on the 25th of November, and at such other periods during the session as the Council may think fit, whose returns must certify that the students named therein are then attending regularly; and no certificate is received from any candidate for either of the diplomas, unless his name appears in the returns corresponding to the date of such certificate. Professors or lecturers neglecting or refusing to make such returns, or who grant certificates to any student whose name has not been inserted in such returns, are not recognised.

The following special or exceptional Bye-laws and ordinances have been enacted:—

That to enable Surgical Students to devote more time to Hospital Attendance and Dissection during the winter session, the lectures on Materia Medica, Medical Jurisprudence, Practical Chemistry and Botany, shall be delivered during the summer session in the School of the College and in the schools recognised by the College; and certificates granted subsequent to the 30th April, 1851, shall not be received as qualification for Letters Testimonial unless issued in conformity with this regulation.

Candidates for Letters Testimonial, who shall have attended metropolitan hospitals during the winter sessions of six months each, shall be considered to have performed sufficient hospital attendance, if they shall be able to produce certificates of regular daily attendance during a like number of months at a county infirmary, or provincial surgical hospital, containing at least fifty beds; provided the surgeons of such infirmaries or hospitals shall make returns to this college, in the months of May and November in each year, of the number of students so attending.

That the Council being anxious to encourage liberal education among candidates for Fellowship and Letters Testimonial, in future all graduates in Arts of the University of Dublin, being registered pupils of the College of Surgeons, shall be admitted to the examinations for Fellowship and Letters Testimonial, provided they produce the certificate of surgical education required by the bye-law, and of such course of education the several certificates of the School of Physic now required by the regulations of the University to be produced.

by candidates for the degree of Bachelor of Medicine, shall be received as part.

That candidates for Letters Testimonial of the College, who shall produce certificates from the Council of one of the Queen's Colleges, that they have passed a full examination in the subjects of study prescribed in the course of matriculation for arts, and have been admitted matriculated students of the College in the Faculty of Medicine, shall be admitted to examination, provided they shall produce the certificates of surgical education required by the bye-laws of this College, and of such course of education the several certificates of the Professors of the Queen's Colleges now required by the Senate of the Queen's University to be produced by candidates for the degree of Doctor of Medicine, shall be received as part; and also provided, that of the four years during which they shall have been engaged in the acquisition of professional knowledge, two shall have been passed in attendance on lectures and hospitals in Dublin, London, or Edinburgh.

Apothecaries' Hall of Ireland.

Governor—Dr. Madden.

Deputy-Governor—Dr. Madden, Jun.

Court of Examiners—Drs. Shaw, John Betty, Edward H. Bolland, Charles Holmes, William D. Moore, Robert Mulock, Henry P. Nolan, George B. Owens, John Shea; Mr. Thomas Collins, Mr. Jerome O'Flaherty, Dr. John McMunn, Mr. Shaw.

Secretary—Dr. Charles H. Leet.

Laws regarding the Education of Apothecaries.

Every candidate must undergo two separate examinations—one for the certificate of apprenticeship, the other for the licence to practise.

Every candidate for the certificate of apprenticeship will be examined in the following books:—In Latin: the Catiline War of Sallust, and the first three books of the *Æneid* of Virgil. In Greek: the Gospel of St. John, and the first twenty Dialogues of Lucian, or the first two books of Homer's *Iliad*. In French: *Telemachus*, or the History of Charles XII. In Science: the first two books of Euclid, and Algebra to the end of Simple Equations. Also in Arithmetic (especially decimals), and in English Composition.

Every candidate for the licence to practise as an Apothecary must lay before the Court—1, The certificate of apprenticeship; 2, The indenture of apprenticeship of five years, enrolled according to the Act of Parliament, and bearing the certificate of the Licentiate Apothecary to whom he has been indented, of a good moral character, and of having fulfilled the period of his apprenticeship; 3, Certificates, duly signed, that he has diligently attended the following lectures, delivered at some School of Medicine recognised by the Court:—

Anatomy and Physiology, Demonstrations and Dissections, of each for twelve months; Practical Chemistry,* Botany, and Natural History, three months; Chemistry, *Materia Medica*,† Theory and Practice of Physic, Surgery, Midwifery, and the Diseases of Women and Children, six months; Medical Jurisprudence, three months.

Certificates of attendance for the entire period of eighteen months, on the medical and surgical practice in an hospital or hospitals recognised by the Court, and where clinical instruction is regularly given; also of attendance upon thirty cases of midwifery.

Candidates for the Licence to Practise are required to be expert in the analysis of poisons, in the detection of adulteration in drugs, and in the use of the microscope.

The examination for the licence to practise as an Apothecary will be as follows:—In Chemistry and General Physics; Pharmacy, theoretical and practical; *Materia Medica* and Therapeutics; Natural History and Medical Botany; Anatomy and Physiology; the Theory and Practice of Medicine; Midwifery; Medical Jurisprudence.

The Council require that every indenture of apprenticeship be enrolled at the Hall within six months of the date of its execution; and that the date of the diploma of the master to whom the apprentice is being bound be furnished at the same time; and that this rule be adhered to on every transfer of such indenture, on pain of forfeiture of the time served.

Naval Medical Service.

Admiralty Office, Somerset House.

Director-General of the Medical Department of the Navy—Sir JOHN LIDDELL, C.B., M.D., F.R.S.

The candidate must produce a Diploma from one of the Colleges of Surgeons, also proof of having received a preliminary classical education; of having been engaged for not less than six months in practical pharmacy; that his age be not less than twenty years, nor more than twenty-six; that he has actually attended an hospital in London, Edinburgh, Dublin, Glasgow, Aberdeen, Manchester, or Bristol, for eighteen months subsequently to the age of eighteen; that he has been engaged in actual dissections twelve months; that he has attended the following lectures—Anatomy, eighteen months (or general anatomy, twelve months, and comparative anatomy, six months); surgery, eighteen months, (or general surgery, twelve months, and military surgery, six months); theory

* The Practical Chemistry must be attended in a laboratory, and no certificate will be received by the Court that does not testify that the candidate has prepared the several pharmacopoeial preparations which are prepared in the laboratory.

† The *Materia Medica*, if attended in summer, must consist of two courses of three months' duration each.

of medicine, six months; practice of medicine, twelve months; (if the lectures on the theory and practice of medicine be given in conjunction, then the period required is eighteen months); clinical lectures on the practice of medicine, six months; practice of surgery, six months; chemistry, six months (or lectures on chemistry, three months, and practical chemistry, three months); materia medica, six months; midwifery, six months, with certificates of the number of cases attended; botany, three months.

By an Admiralty Circular, dated 1855—1, Assistant-Surgeons of the Royal Navy are to rank with mates, according to the dates of their respective commissions, and will take relative rank with Lieutenants and Assistant Surgeons in the Army. 2. Assistant-Surgeons serving in ships commanded by captains or commanders are to mess with the ward-room officers; and those serving in vessels commanded by lieutenants or masters are to mess in the gun-room with the other officers. 3. Cabins are to be assigned to Assistant-Surgeons whenever the service admits.

It is reported that the provisions of the warrant recently issued by the War-Office, regulating the grades, rank and emoluments, and general position of the medical officers of the army, are about to be extended in every particular to the medical departments of the navy.

Army Medical Department,

6, Whitehall-yard.

Director-General—T. ALEXANDER, Esq., C.B.

The name of no gentleman can be placed on the list of candidates who does not possess a diploma in surgery, with the following testimonials:—Eighteen months' hospital; twelve months' anatomy; twelve months' practical anatomy; six months' physiology; twelve months' surgery, or (what is preferred) six months' surgery and six months' military surgery; eight months' clinical surgery; twelve months' practice of physic, or six months' practice of physic, and six of general pathology; eight months' clinical lectures on ditto, the same as required in surgery; twelve months' chemistry; six months' practical chemistry; three months' botany; three months' materia medica; three months' practical pharmacy, or apprenticeship; three months' natural history; three months' midwifery; three months' practical midwifery; one course natural philosophy; one course logic. Candidates must be unmarried, not beyond twenty-five years of age, nor under twenty-one years. The certificate of the teacher of practical anatomy must state the number of subjects or parts dissected by the pupil. All candidates for medical appointments are required to be conversant with Cullen's Nosology,

RANK OF ARMY SURGEONS.

The following warrant was issued on the 14th October:—

VICTORIA B.

Whereas we have taken into our consideration the recommendations of the commissioners appointed by our authority to inquire into the regulations affecting the sanitary condition of our military forces, and the medical treatment of the sick and wounded of our army, our will and pleasure is that from and after the date of this warrant the following rules shall be established for the future admission, promotion, and retirement, and the pay, half-pay, relative rank and allowances of the medical officers of our army, and that by these rules our Commander-in-Chief shall govern himself in recommending officers for admission, promotion, and retirement.

1. The grades of medical officers in our army shall be four in number—viz:—

(1.) Inspector-general of hospitals.

(2.) Deputy inspector-general of hospitals.

(3.) Staff or regimental surgeon, who after 22 years' full-pay service in any rank shall be styled surgeon-major.

(4.) Staff or regimental assistant-surgeon.

2. No candidate shall be admitted to the competitive examination for a commission in the Medical Department of our army who does not possess such a certificate or certificates as would qualify a civilian to practise medicine and surgery; and no such candidate shall receive a commission as assistant-surgeon until he shall have satisfactorily passed an examination in military medicine, surgery, and hygiene, after attending the authorized course in a general military hospital.

3. No assistant-surgeon shall be eligible for promotion to the rank of surgeon until he shall have passed such examination as our principal Secretary of State for War may require, and shall have served on full-pay with the commission of assistant-surgeon for five years, of which two shall have been passed in or with a regiment.

4. A surgeon, whether on the Staff or attached to regiments, must have served ten years in the army, with a commission of full-pay, of which two must have been passed with the rank of surgeon in or with a regiment, before he will be eligible for promotion to the rank of deputy inspector-general of hospitals.

5. A deputy inspector-general of hospitals must have served five years at home, or three abroad, in that rank before he shall be eligible for promotion to the rank of inspector-general.

In cases, however, of emergency, or when the good of the service renders such alteration desirable, it shall be competent for our Secretary of State for War to shorten the several periods of service above-mentioned, in such manner as he shall deem fit and expedient.

6. Assistant-surgeons shall, as a general rule, be promoted to the rank of surgeon in the order of their seniority in the service, unless unfit for the discharge of their duties from physical or professional incompetence or misconduct. In cases of distinguished service, however, an assistant-surgeon may be promoted without reference to seniority; and in such cases, with a view to insure the responsibility attaching to an appointment made out of the regular course of promotion, the recommendation, in which the services of the officer shall be detailed, shall be published in the General Orders of the Army and in the *Gazette* in which his promotion appears.

7. All promotion from the rank of surgeon to that of deputy-inspector, and from the rank of deputy-inspector to that of inspector, shall be given by selection for ability and merit; and the grounds of such selection shall be stated to us in writing, and recorded in the office of our Commander-in-Chief, the selection being made from the whole rank of surgeons, whether styled surgeons or surgeon-majors.

8. The rates of pay of the medical officers of our army shall be in accordance with the following schedule:—

	After 20 Years' Service on Full Pay.	After 20 Years' Service on Full Pay.	After 20 Years' Service on Full Pay.	After 20 Years' Service on Full Pay.	After 20 Years' Service on Full Pay.	After 20 Years' Service on Full Pay.	After 20 Years' Service on Full Pay.	After 20 Years' Service on Full Pay.	After 20 Years' Service on Full Pay.
Inspector-General	£ 2 5 0	£ 2 5 0	£ 2 5 0	£ 2 5 0	£ 2 5 0	£ 2 5 0	£ 2 5 0	£ 2 5 0	£ 2 5 0
Deputy-Inspector-General	£ 1 14 0	£ 1 10 0	£ 1 8 0	£ 1 8 0	£ 1 8 0	£ 1 8 0	£ 1 8 0	£ 1 8 0	£ 1 8 0
Surgeon-Major	£ 1 5 0	£ 1 5 0	£ 1 5 0	£ 1 5 0	£ 1 5 0	£ 1 5 0	£ 1 5 0	£ 1 5 0	£ 1 5 0
Surgeon	£ 13 0	£ 13 0	£ 13 0	£ 13 0	£ 13 0	£ 13 0	£ 13 0	£ 13 0	£ 13 0
Assistant-Surgeon	£ 11 6 0	£ 11 6 0	£ 11 6 0	£ 11 6 0	£ 11 6 0	£ 11 6 0	£ 11 6 0	£ 11 6 0	£ 11 6 0

* Or on promotion, should these periods of service not be already completed.

9. In addition to the pay of their ranks, officers at the head of the medical department on foreign stations shall receive allowances at the under-mentioned rates, when serving under the following circumstances, viz.:—

If with an army in the field of 10,000 men or upwards, 20s. per day.

If with an army in the field of 5,000 men or upwards, 15s. per day.

If with an army in the field of any less number, 10s. per day.

If serving in a colony where the forces consist of 1,500 men or upwards, 5s. per day.

10. After the date of this warrant every medical officer placed on half-pay by reduction of establishment, or on the report of a Medical Board, in consequence of being incapacitated by reason of ill-health, caused by wounds, or brought on by the discharge of his duties, shall be allowed the half-pay to which his period of full-pay service may entitle him, according to the following schedule:—

	After 20 Years' Service on Full Pay.	After 20 Years' Service on Full Pay.	After 20 Years' Service on Full Pay.	After 20 Years' Service on Full Pay.	After 20 Years' Service on Full Pay.	After 20 Years' Service on Full Pay.	After 20 Years' Service on Full Pay.	After 20 Years' Service on Full Pay.	After 20 Years' Service on Full Pay.
Inspector-General	£ 2 5 0	£ 2 5 0	£ 2 5 0	£ 2 5 0	£ 2 5 0	£ 2 5 0	£ 2 5 0	£ 2 5 0	£ 2 5 0
Deputy-Inspector-General	£ 1 14 0	£ 1 10 0	£ 1 8 0	£ 1 8 0	£ 1 8 0	£ 1 8 0	£ 1 8 0	£ 1 8 0	£ 1 8 0
Surgeon-Major	£ 1 5 0	£ 1 5 0	£ 1 5 0	£ 1 5 0	£ 1 5 0	£ 1 5 0	£ 1 5 0	£ 1 5 0	£ 1 5 0
Surgeon	£ 13 0	£ 13 0	£ 13 0	£ 13 0	£ 13 0	£ 13 0	£ 13 0	£ 13 0	£ 13 0
Assistant-Surgeons	£ 11 6 0	£ 11 6 0	£ 11 6 0	£ 11 6 0	£ 11 6 0	£ 11 6 0	£ 11 6 0	£ 11 6 0	£ 11 6 0

11. With a view to maintain the efficiency of the service all medical officers of the rank of surgeon-major, surgeon, or assistant-surgeon shall be placed on the retired list when they shall have attained the age of 55 years, and all inspectors-general and deputy inspectors-general when they shall have attained the age of 65 years.

Officers thus superannuated shall be entitled to the rates of half-pay stated in the preceding schedule.

12. Every medical officer who shall have served upon full pay for 25 years and upwards shall have the right to retire upon half-pay, at the rate of seven-tenths of the daily pay he was in receipt of when thus retiring, provided he shall have served three years in the rank from which he retires, or shall have served in any rank for 10 years in the colonies, or five years with an army in the field. But if he shall not have complied with any one of these conditions he shall be entitled only to half-pay at the rate of seven-tenths of the daily pay he was in receipt of before his last promotion.

13. Every medical officer thus claiming to retire must give six months' notice to the head of his department of his intention to claim this right prior to his being allowed to retire; and no medical officer shall have a right to give such notice after he shall be under orders to proceed to any foreign station, until he shall have served at such station for one month.

14. If a medical officer is placed on half-pay from any other cause than those hereinbefore named he shall only be allowed a temporary rate of half-pay (not exceeding the rates stated in clause 10) for such period and at such rate as shall be assigned to him by our Secretary of State for War, on a consideration of the length and character of the services rendered to the public by such medical officer.

15. On reduction of establishment the surgeon and assistant-surgeon who are junior in the ranks shall be the first reduced, and on restoration to full pay the reduced officers, who are senior in their rank, shall be the first restored.

16. The relative rank of the medical officers of our army shall be as follows:—

Staff or regimental assistant-surgeon as a lieutenant, according to the date of his commission; and after six years' full-pay service as captain, according to the date of the completion of such service.

Staff or regimental surgeon as major, according to the date of his commission; and surgeon-major as lieutenant-colonel, but junior of that rank.

Deputy inspector-general of hospitals as lieutenant-colonel, according to the date of his commission; and after five years' full-pay service as deputy inspector-general, as colonel, according to the date of the completion of such service.

Inspector-general of hospitals as brigadier-general, according to the date of his commission, if with an army in the field, or after three years' full pay service as inspector-general as a major-general, from the date of his joining such army in the field, or according to the date of the completion of such service.

17. Such relative rank shall carry with it all precedence and advantages attaching to the rank with which it corresponds (except as regards the presidency of Courts-martial, where our will and pleasure is, that the senior combatant officer be always president), and shall regulate the choice of quarters, rates of lodging money, servants, forage, fuel, and light, or allowances in their stead, detention, and prize money. But when a medical officer is serving with a regiment or detachment, the officer commanding, though he be junior in rank to such medical officer, is entitled to a preference in the choice of quarters.

18. Medical officers shall be entitled to all the allowances granted by our warrant of the 13th July, 1857, on account of wounds and injuries received in action, as combatant officers holding the same relative ranks.

19. Their families shall in like manner be entitled to all the allowances granted by our warrant of the 15th of June, 1855, to the families of combatant officers holding the same relative ranks.

20. Medical officers shall be entitled to field allowances, at home and abroad, at the following rates, subject to all the conditions and restrictions laid down in our warrant of 1st July, 1848:—

DAILY RATE.

	Ordinary.	Extraordinary.
REGIMENTAL.	s. d.	s. d.
Assistant-Surgeon, under six years' service	1 0	2 0
Assistant-Surgeon, above six years' service	1 6	2 6
Surgeon	2 6	4 6
Surgeon-Major	2 6	4 6
STAFF.		
Assistant-Surgeon, under six years' service	1 6	2 6
Assistant-Surgeon, above six years' service	2 0	3 6
Surgeons	3 0	5 0
Surgeon-Major	3 0	5 0
Deputy-Inspector-General, under three years' service	4 6	7 6
Deputy-Inspector-General, above three years' service	6 0	10 0
Inspector-General of Hospitals	9 0	15 0

21. Surgeons or surgeons-major of infantry regiments, shall not in future be subject to any diminution of the allowance of forage, according to the regulations in force, nor to any stoppage out

of their daily pay for any ration of hay, straw, or oats supplied for the horse or horses kept by them for the public service.

22. All staff surgeons of the first-class and senior surgeons of artillery now serving, or who being now on half-pay, shall hereafter be called upon to serve, shall rank as surgeons-major from the date of their commissions as staff-surgeons of the first-class, or senior surgeons of artillery, and shall receive the pay of surgeon-major according to the foregoing schedule of full-pay from the date of this warrant, or from the date of being called from half-pay to full-pay; and all surgeons who have already completed 20 years' full-pay service or upwards, in any rank, shall have the rank and pay of surgeons-major from the date of this warrant.

23. Medical officers shall be held entitled to the same honours as other officers of our army of equal relative rank.*

24. A medical officer, retiring after a full-pay service of 25 years and upwards, may, if recommended for the same by the head of his department, receive a step of honorary rank, but without any consequent increase of half pay.

25. Good service pensions shall be awarded to the most meritorious medical officers of our army under such regulations as shall be from time to time determined by us, with the advice of our Secretary of State for War.

26. Six of the most meritorious medical officers of the army shall be named by honorary physicians, and six my honorary surgeons.

Given at our Court of St. James's this 1st day of October, 1858, in the 22nd year of our reign.

By Her Majesty's command,

J. PEEL.

East India Medical Service.

East India House, Leadenhall-street.

Examining Medical Officer—DR. SCOTT.

REGULATIONS FOR THE ADMISSION
OF CANDIDATES FOR THE APPOINTMENT OF ASSISTANT-
SURGEON IN
THE EAST INDIA ARMY.

All natural-born subjects of her Majesty, between 22 and 28 years of age, and of sound bodily health, may be candidates for admission into the service of the East India Company, as Assistant Surgeons.

They must subscribe and send in to Dr. Scott, the Physician to the Honorable East India Company, 30 days before the period fixed for each examination, a declaration to the following effect:—

"I (Christian and Surname at full length) a candidate for employment as an Assistant Surgeon in the

* This clause does not extend to the compliments to be paid by garrison or regimental guards, as laid down in pages 29 and 30 of the "Queen's Regulations for the Army."

service of the East India Company, do hereby declare that I was _____ years of age on the _____ day of _____ last,

and that I labour under no constitutional disease or physical disability that can interfere with the due discharge of the duties of a medical officer; and I also attest my readiness to proceed on duty to India within three months of receiving my appointment."

This declaration must be accompanied by the following documents:—

1. Proof of age, either by extract from the register of the parish in which the candidate was born, or by his own declaration, pursuant to the Act 5 & 6 William IV., cap. 62.

2. A certificate of moral character from a magistrate, or a minister of the religious denomination to which the candidate belongs, who has personally known him for at least two preceding years.

3. A diploma in surgery (or a degree in medicine, provided an examination in surgery be required for such degree) from some body competent by law to grant or confer such diploma or degree.

4. A certificate of having attended two courses of lectures, of six months each, on the practice of physic, and of having attended, for six months, the practice and clinical instruction of the physicians at some hospital containing at least, on an average, one hundred in-patients; or of having attended one course of lectures, of six months, on the practice of physic, and clinical instruction for twelve months.

5. A certificate of having attended, for three months, the practical instruction given at one of the public asylums for the treatment of the insane.

6. A certificate of having attended, for three months, one of the institutions, or wards of an hospital, especially devoted to the treatment of ophthalmic disease.

Candidates who may not have been able to attend the practice of an asylum for the insane, or of an ophthalmic hospital, for three months previous to their offering themselves for examination, will not be excluded from examination, but will, if successful in obtaining recommendation for appointments, be required to produce certificates of having attended such practice during the interval between the examination and the time of proceeding to India.

7. A certificate of having attended a course of lectures on midwifery, and of having conducted at least six labours.

8. A certificate of having acquired a practical knowledge of cupping.

Candidates may also, at their option, send in certificates of attendance at any hospitals, or on any courses of lectures, in addition to the above. Attendance on a course of military surgery, and the practical study of surgical operations on the dead body, are recommended.

The examination will include the following subjects:

1. Surgery in all its departments.
2. Medicine (including the Diseases of Women and Children), Therapeutics, Pharmacy, and Hygiene.
3. Anatomy and Physiology, including Comparative Anatomy.
4. Natural History, including Botany and Zoology.

The following are the books recommended in—

Zoology and Comparative Anatomy—Outlines of the Structure of the Animal Kingdom, by Rymer Jones; or *Cours Elementaire d'Histoire Naturelle*, par Milne Edwards.

Botany—Lindley's School Botany, or Lindley's Elements of Botany.

The examination will be conducted—1. By means of written questions and answers. 2. By object examinations and experiments, when the subject admits of such tests. 3. By practical examination of patients, and by

operations on the dead body. 4. By *visd voce* examination.

The persons who shall be pronounced by the examiners to be the best qualified in all respects will be appointed to fill the requisite number of appointments as Assistant Surgeons in the East India Company's Service; and so far as the requirements of the service will permit, they will have the choice of the Presidency in India to which they shall be appointed, according to the order of merit in which they stand on the list resulting from such examination.

All Assistant Surgeons are required to subscribe to the Military or Medical, and Medical Retiring Funds, at the Presidencies to which they may be respectively appointed, and the Military Orphan Society also, if appointed to Bengal.

All Assistant Surgeons who shall neglect or refuse to proceed to India under the orders of the Court of Directors, within three months from the date of their appointment, will be considered as having forfeited it, unless special circumstances shall justify a departure from this regulation.

A copy of these regulations, and any further information, may be obtained on application to the Secretary of the Military Department, East India House.

The examinations will take place in the months of January and July in each year, and due notice will be given, by public advertisement, of the days appointed, and of the probable number of candidates to be selected.

The Examiners for Assistant Surgeons in the Honourable East India Company's Service having received many inquiries as to the object and extent of the examination in Comparative Anatomy, Zoology, and Botany, have considered it desirable to announce that their objects are—

1. To ascertain who of the candidates have devoted especial attention to any of these sciences, and are hence qualified to undertake duties requiring a knowledge of them, as well as the general duties of their profession. Proficiency in these sciences will, in classifying the candidates by merit, be entitled to great consideration.

2. To encourage all candidates to acquire an elementary knowledge of the structure and affinities of the principal natural families of animals and of plants, with the general plan upon which these are constructed, and the functions and relations of their most important organs.

3. To promote the study of natural history, as a most important adjunct or preliminary to a liberal medical education; that of Comparative Anatomy, Zoology, or Botany, if properly cultivated, by means of specimens, for even a short period, being eminently calculated to develop habits of close observation, and to strengthen those powers of reasoning upon observed facts, which must be habitually exercised by medical men everywhere, but which must be exercised with the greatest energy and promptitude by those who practise in a tropical climate, and who are often thrown wholly upon their own resources.

The general examination in these sciences will be elementary, and will embrace a very limited range of technical terms. At the written examination a considerable number of questions will be put, with the view of allowing each candidate to select such subjects as he has attended to, and thereby of enabling the examiners to ascertain the particular departments of science in which the verbal examination should be conducted.

With those candidates who have attained proficiency in any branch of these sciences, the verbal examination will be pursued in the branch selected, so as to ascertain the full extent of their knowledge.

MEMORANDUM AS TO THE PAY AND ALLOWANCES.

OF MEDICAL OFFICERS IN THE EAST INDIA COMPANY'S SERVICE.

Pay and allowances and time of service commence from date of arrival at the Presidency to which they are appointed.

On first arrival, and whilst attached to the General Hospital at the Presidency, they are granted pay and allowances (inclusive of quarters valued at Rs. 25 per month) amounting per month to Rs. 220.

When posted to do duty with corps, they receive the following allowances:—

		Within 200 miles of the Presidency. Per Month.		Beyond 200 miles from the Presidency. Per Month.	
		R.	A.	R.	A.
Including conveyance allowance of Rs. 20 a month.	Horse Artillery and Cavalry, ..	264	6	..	395 4
	Foot Artillery, ..	264	4	..	295 12
	Infantry, ..	255	12	..	286 10

When in charge of corps as Assistant Surgeons, having passed the prescribed examination in native languages:—

		R.		A.	
		R.	A.	P.	P.
Including a Staff Salary of Rs. 165 a month.	Horse Artillery, ..	499	6	..	530 4
	Cavalry, ..	399	4	..	430 12
	Foot Artillery, ..	390	12	..	421 10

When in charge of corps as Surgeons, having passed the prescribed examination in native languages:—

		R.		A.	
		R.	A.	P.	P.
Including a Staff Salary of Rs. 300 a month.	Horse Artillery, ..	821	11 4	..	863 0 4
	Cavalry, ..	692	5 0	..	733 10 0
	Foot Artillery, ..	674	1 0	..	715 6 0

Surgeons and Assistant Surgeons of European corps are granted, in addition, an allowance of Rs. 25 per month for every 100 Europeans under their charge.

Surgical instruments are provided by government.

FURLOUGHS.

On Private Affairs—

For two years, after ten years' service in India, with pay, if a Surgeon, ... 10s. 6d. a day.

If an Assistant Surgeon, ... 6s. 6d. "

A second furlough for two years, after expiration of ten years from date of return to duty from first furlough, with pay as above.

On Sick Certificate—

For eighteen months, with Indian pay and allowances for six months; for the remaining time, with furlough pay as above. Time may be extended on renewed medical certificate, with pay, for three years in the whole. Assistant Surgeons returning to England on sick certificate receive Rs. 1,200 passage-money.

RETIRING PENSIONS.

After 17 years' service		...	£191 per annum.
" 21	"	...	250 "
" 25	"	...	300 "
" 29	"	...	365 "
" 32	"	...	500 "
" 35	"	...	700 "

The full time of service must be completed in each case. Out of that time leaves of absence in India or Europe, or elsewhere, to the extent of one year and

eight months in seventeen years, two years in twenty years, three years in twenty-five years, and four years in thirty years, will be allowed to count as service.

Medical Officers compelled to quit the service by health, before they are entitled to retiring pensions; above, may retire on the following rates of pension:—

Assistant Surgeons, after six years' service in India	...	£54 15 per annum
" " " ten	...	73 0 "
And if they have attained the rank of Surgeon	...	127 15 "

Assistant Surgeons compelled to quit the service by wounds received in action, or by ill health contracted on duty, after three years' service in India, are permitted to retire on £73 per annum.

WIDOWS' PENSION FROM LORD CLIVE'S FUND.

Widow of a Member of the Medical Board on declaration that the deceased Officer was not possessed of or entitled to the sum of ...	...	£4,000	...	£114 1 1
Do. of Superintending Surgeon	3,000	...	91 5 1	
Do. of Surgeon	2,000	...	45 12 1	
Do. of Assistant Surgeon	1,000	...	22 16 1	

Note.—For information respecting the Pensions of Widows and Children, and other advantages, from the Military, Medical, and Orphan Funds; also for information as to the Annuities to Retired Medical Officers from the Medical Retiring Funds; and as to the new of subscriptions, &c., applicants are referred to the Agents of those Funds respectively, viz.:—

Bengal Military Fund—Lieut.-Col. H. B. Henderson, Old Jewry Chambers.

Bengal Orphan Society—Lieut.-Col. W. Turner, 61 Cornhill.

Bengal Medical Fund—Messrs. Coutts & Co., Strand.
Madras Military Fund—Messrs. Grindlay & Co., 61 Cornhill.

Madras Medical Fund—Messrs. Alexander, Fletcher & Co., King's Arms Yard.

Bombay Military Fund, and Bombay Medical Fund—Messrs. Forbes, Forbes, & Co., King William-street.

We have given in detail the requirements of the Universities and Colleges in Ireland empowered to grant Medical Degrees, Diplomas, or Licences to Practise Medicine or Surgery, and also of the Apothecaries' Hall of Ireland. The Chart which will be found on next page will supply all information as to the requirements of Universities and Colleges in England and Scotland for Medical and Surgical qualifications; it also enumerates the various Certificates which the different branches of the Public Service deem necessary.

The other Charts will be found a daily and hourly Hospital and School Guide, as they supply a Tabular List of the Medico-Chirurgical Hospitals of Dublin, the various Medical Schools, and the Physicians and Surgeons connected with each. A list of the Hospitals and Schools in Dublin for special medical instruction is also given.

TABULAR LIST OF LECTURES, &c., required for University Degrees, Colleges, Diplomas, &c., &c.

[illegible]

• Or 12 months, and Comparative Anatomy, 6 months. † Or 12 months, and Military Surgery, 6 months. ‡ Or Theory of the, 6 months, Practice of the, 12 months.

Information respecting exceptions to these regulations under various circumstances, and other details as to the order in which, according to some Licensing Bodies, the courses should be taken out, &c., must be obtained by consulting the published Charts of the Colleges, &c.

MEDICAL SCHOOLS OF DUBLIN, 1858-59.

WINTER SESSION.	Anatomy and Physiology.	Descriptive Anatomy.	Demonstrations and Dissections.	Surgery.	Practice of Medicine.	Materia Medica and Therapeutics.	Chemistry.	Midwifery.	Institutes of Medicine and Pathology.	Military Surgery.	Operative Surgery.
SCHOOL OF PHYSIC, TRINITY COLLEGE, DUBLIN	Dr. McDowell	Dr. Barton Dr. Symes	Dr. Barton	Dr. Smith	Dr. Banks	Dr. Osborne	Dr. Apjohn	Dr. Churchill	Dr. Law	.. ..	Dr. Smith Dr. Barton
ROYAL COLLEGE OF SURGEONS ..	Dr. Jacob	Dr. Power Dr. Ryan	Mr. Morgan Mr. Maspoth Mr. Egan	Mr. Porter Mr. Hargrave	Dr. Benson	Dr. Williams	Dr. Barker	Dr. Sawyer	.. ..	Mr. Tufnell	Mr. Porter Mr. Hargrave
DUBLIN ORIGINAL SCHOOL OF MEDICINE	Dr. Mason Dr. Ledwith	Dr. Ledwith Dr. O'Doherty	Dr. Mason Dr. Ledwith Mr. R. Ledwith Mr. Bright	Mr. Taggart Dr. Wharton	Dr. Lees	.. ..	Dr. Cameron	Dr. Ringland	.. ..	.. ..	Mr. Taggart Mr. Wharton
RICHMOND HOSPITAL (OR CAR-MICHAEL) SCHOOL OF MEDICINE	Dr. McDonnell	Dr. McDonnell Dr. Curran	Dr. Curran Dr. Jennings Dr. A. Jennings	Mr. Hamilton	Dr. Mayne	Dr. Macnamara	Dr. Davy	Dr. Denham	.. ..	.. ..	.. ..
CATHOLIC UNIVERSITY SCHOOL OF MEDICINE	Dr. Hayden Dr. Cryan	Dr. Hayden Dr. Cryan	Mr. Tyrrell Dr. Quinlan	Mr. Ellis	Dr. Lyons	Dr. MacDermott	Dr. Sullivan	.. ..	.. ..	.. ..	.. ..
STEVENS' HOSPITAL SCHOOL OF MEDICINE	Mr. S. A. Cusack	Dr. E. Hamilton	Dr. Minchin Mr. Holmes	Mr. Colles Mr. Wilmot	Dr. Freke Dr. Burke	Dr. Gordon	Dr. Aldridge	Dr. Hardy	.. ..	.. ..	.. ..

SUMMER SESSION.	Practical Anatomy.	Botany.	Practical Chemistry.	Medical Jurisprudence.	Materia Medica.	Natural History.	Logic.	Natural Philosophy.	
SCHOOL OF PHYSIC, TRINITY COLLEGE, DUBLIN	Dr. Barton Dr. Egan	Dr. Harvey	Dr. Apjohn	Dr. Brady	.. ..	.. ..	.. ..	.. ..	
ROYAL COLLEGE OF SURGEONS ..	Mr. Morgan Mr. Hargrave Mr. Maspoth Mr. Colles	Dr. Mitchell	Dr. Barker	Dr. Geoghegan	Dr. Williams	Dr. Mitchell Dr. Jacob	Dr. Murray	.. ..	
DUBLIN ORIGINAL SCHOOL OF MEDICINE	Dr. Mason Dr. E. Ledwith Dr. O'Doherty Dr. Lane	Dr. Aiken	Dr. Cameron	Dr. Travers	.. ..	.. ..	.. ..	.. ..	
RICHMOND HOSPITAL (OR CAR-MICHAEL) SCHOOL OF MEDICINE	Dr. Curran Dr. Jennings Dr. Davies	Dr. Fraser	Dr. Davy	Dr. O'Reilly	Dr. Macnamara	Dr. Fraser	.. ..	.. ..	
CATHOLIC UNIVERSITY SCHOOL OF MEDICINE	Mr. Tyrrell Dr. Quinlan	.. ..	Dr. Sullivan	Dr. MacGrawney	Dr. MacDermott	.. ..	.. ..	Mr. Hennessy	
STEVENS' HOSPITAL SCHOOL OF MEDICINE	Dr. Minchin Dr. Holmes	.. ..	Dr. Aldridge	Dr. Wills	Dr. Gordon	.. ..	Rev. W. P. Dobbin	.. ..	

THE MEDICO-CHIRURGICAL HOSPITALS OF DUBLIN.

Names of Hospitals.	No. of Beds.	No. of Intern Patients annually treated.	Physicians.	Surgeons.	Particulars.
THE RICHMOND, WHITWORTH, and HARDWICKE HOSPITALS	312	4108	Dr. Corrigan Dr. Banks Dr. M'Dowel Dr. Gordon	Dr. Hutton Dr. Adams Mr. Hamilton Dr. Fleming Dr. Smith	For particulars, see Advertisement, page 4.
STEEVENS' HOSPITAL ...	250	2432	Sir H. Marsh Dr. Croker Dr. Freke Dr. Burke	Mr. Cusack Mr. Colles Mr. Wilmot Mr. S. A. Cusack	For particulars, see Advertisement, page 3.
MEATH HOSPITAL ...	102	1226	Dr. Stokes Dr. Lees	Mr. Porter Mr. Smyly Mr. Rynd Mr. G. H. Porter Mr. M. H. Collis Mr. Wharton	For particulars, see Advertisement, page 8.
ST. VINCENT'S HOSPITAL ...	100	880	Dr. J. M. O'Ferrall Mr. K. I. O'Doherty Dr. Quinlan		For particulars, see Advertisement, page 7.
CITY OF DUBLIN HOSPITAL ...	60	582	Dr. Jacob Dr. Beatty Dr. Benson Dr. Hargrave Dr. Williams Dr. Geoghegan Mr. Tufnell		
JERVIS-STREET HOSPITAL ...	60	720	Dr. Hughes Dr. Lyons	Mr. O'Reilly Mr. Ellis Dr. Stapleton Dr. Banon Dr. J. S. Hughes Dr. J. H. Power Dr. A. M'Donnell	For particulars, see Advertisement, page 6.
MERCER'S HOSPITAL ...	60	622	Dr. Osborne	Mr. Tagert Dr. Jameson Dr. Bevan Mr. Butcher	
ADELAIDE HOSPITAL ...	74	...	Dr. Duncan Dr. Hudson	Dr. Walsh Dr. Morgan Dr. Barton Dr. Richardson	For particulars, see Advertisement, page 6.

SPECIAL HOSPITALS OF DUBLIN IN WHICH CLINICAL INSTRUCTION IS GIVEN.

SIR P. DUN'S HOSPITAL, into which are admitted all cases requiring *medical assistance*. The Clinical Professors are the King's Professors in the School of Physic. (See Advertisement, page 8.)

THE ROTUNDA LYING-IN HOSPITAL contains 180 beds; receives 2,000 women annually; is presided over by Dr. McClintock as *Master*, with Drs. Guinness and Byrne as *Assistants*. (See Advertisement, page 9.)

THE COOMBE LYING-IN HOSPITAL contains 21 beds; receives annually 588 patients.

THE CORK-STREET FEVER HOSPITAL contains 120 beds; receives 2,000 patients annually. Admission is restricted to cases of *Fever*.

ST. MARK'S OPHTHALMIC HOSPITAL, devoted to diseases of the Eye and Ear, accommodates 20 indoor patients, and has attached to it an operating theatre and an extensive dispensary. The indoor patients are visited daily. The *Attending Surgeon*, Dr. Wilde, delivers a course of clinical instruction in the Hospital during the Winter Session. (See Advertisement, page 12.)

THE LOCK HOSPITAL, with 40 beds, is constantly occupied with cases of syphilis.

THE HOSPITAL FOR DISEASES OF CHILDREN, PITT-STREET, is attended by Drs. Hardy and Moore, and is entirely devoted to the treatment of diseases incidental to children. (See Advertisement, page 6.)

THE RICHMOND DISTRICT LUNATIC ASYLUM.—*Visiting Physicians*—Dr. Mollan, Dr. Tuohill, Dr. Banks. *Surgeon*—John Hughes, L.R.C.S.I. Contains 600 patients. A course of Lectures on Insanity and Mental Diseases is given by Dr. Banks in the Theatre of the Richmond Hospital. (See Advertisement, page 6.)

TRINITY COLLEGE, DUBLIN.

The following Medical Degrees have been conferred by the UNIVERSITY OF TRINITY COLLEGE during the present year.

M.D.

John R. Kinahan. Benjamin G. M'Dowel.
Robert MacDermott.

M.B.

Edward P. Wright	Francis R. Cruise
Richardson King	Henry S. Smith
Benjamin Bruland	John Ellis
William H. Pickford	William Semple
George Edward Carr	John Montgomery Fiddes
J. Carey	Benjamin G. M'Dowel

QUEEN'S UNIVERSITY.

The following Medical Degrees have been conferred by the QUEEN'S UNIVERSITY during the present year.

M.D.

Garrett Barry	James H. M'Manus (<i>ad eundem</i>)
Jeremiah J. Dowling	Thomas Crofts Skinkwin (<i>ad eundem</i>)
Alexander Jennings	Robert Thomas Warren
James Stewart Laird	Robert Waters
Francis M. Luther	Thomas H. White
James M'Carthy	
John M'Crea	
David Taggart	

ROYAL COLLEGE OF SURGEONS.

List of gentlemen who obtained the Diploma of the ROYAL COLLEGE OF SURGEONS of Ireland during the present year:—

Brown, John, Dublin
Bourke, Joseph John, Oldtown, county Mayo
Bright, Samuel, Dublin
Berney, George, Nenagh, county Tipperary
Burnett, Thomas Smith, Tullow, county Carlow
Bruen, Austin, Cootehill, county Roscommon
Carberry, Wm. D., Youghal, county Cork
Cane, Richard James, Kilkenny
Coffey, Edward, Crowhill, Newmarket-on-Fergus
Crean, Robert, county Wexford
Crean, T. J., Knockelly, Fethard, county Tipperary
Chesney, George C., Westpark, Glasnevin
Coghlan, Michael, Nenagh
Cane, George Edward, Inver Glebe, Donegal
Davidge, George Abraham, Castlepollard
Fitzmaurice, Ulysses, Creagh-house, Listowel
Fitzgerald, Thomas Naghten, Melbourne
Fullham, John, Gormanstown, county Meath
Fiddes, John M., Scotstown, Monaghan
Goodman, Godfrey, Ballymun, Dingle
Graves, William, Dublin
Gibbon, Edward Acton, the Cottage, Sandymount
Gorges, Thomas Edward, Mount-Prospect, Miltown
Hague, Robert, Cavan
Hunt, John H., Deerpark-lodge, Carrick-on-Suir
Hogan, Michael, Dublin
Holmes, Arthur Parker, Dublin
Harris, John Pitt, Dublin
Hudson, Arthur C., Seabank, Arklow
Henry, Richard, Birkenhead, England
Jamieson, Thomas, Lisbellard
Jennings, Alexander, Saintfield, county Down
Kearns, Wm. Robt., Ahascragh, county Galway
Kinahan, John, Feakle, county Clare
Kennedy, Matthew S., Tipperary
Kelly, John, Ballyshannon, county Donegal
Likely, Richard, Ballyshannon
Massy, Hugh D., Dublin
McDonogh, Patrick, Dublin
Masterson, Edward, Corrig-avenue, Kingstown
Macbeth, Hugh M., Ennis, county Clare
Moffit, Andrew, Derrylin, county Fermanagh

Mulock, Horatio Nelson, Dublin
McDermott, John Joseph, Dublin
McFarland, Francis Edward, Dublin
Mahony, John, Limerick
Murtagh, Thomas, Dublin
Nihill, John, Killaloe, county Clare
Neale, Joseph M., Newton, county Kildare
Purefoy, James Robert, Liscann, county Dublin
Parsons, Wm., Mountmellick, Queen's County
Quale, Robert, Roebuck-grove, Donnybrook
Raverty, Henry, Bray, county Wicklow
Robinson, John, Athlone
Ramsay, Thomas, Strabane
Semple, Charles Wm., Castlebar, county Mayo
Speedy, James, Dublin
Sweetman, Stephen, Air-hill, county Cork
Shea, Henry, St. John's, Newfoundland
Symes, Glascott Richard, Kingstown, county Dublin
Stewart, John, Dublin
Trimble, James, Castlebellingham
Thorp, Thomas, Dublin
Tracy, Maurice Charles, Piltown, county Waterford
Temple, Wm., Monaghan
Trousell, Charles, Ennis, county Clare
Tymons, James, Baskin-house, county Dublin
Vance, John, Dublin
Wilson, Frederick Robert, Richmond, Kingstown
Williams, Nicholas, Macroom, county Cork
Walsh, Thomas, Dublin
White, Wm., Goresbridge, Kilkenny
White, Matthew S., Carlow
White, Richard, Dublin
Wilson, James, Dublin
Walshe, T. P. Ballinakill, Queen's County
White, Thomas Edward, Kingstown
Wilson, Henry, Sandymount, county Dublin
Warren, Benjamin, Dublin

BENJAMIN WILLS RICHARDSON, Esq., F.R.C.S.I., has been elected Surgeon to the Adelaide Hospital, Dublin, in the room of James H. Wharton, Esq., recently appointed to the Meath Hospital.

ROYAL COLLEGE OF PHYSICIANS.—At the Comitia Majora held on Friday, the 22nd inst., Dr. THOMAS WATSON, of Henrietta-street, Cavendish-square, was chosen a Member of "The General Council of Medical Education and Registration of the United Kingdom."

DEATH.

We regret to have to record the death of HENRY MARSHALL HUGHES, M.D., Fellow of the Royal College of Physicians, and Physician to Guy's Hospital, which mournful event occurred at 12, Marine-parade, Brighton, on Thursday week, in the 53rd year of his age. Dr. Hughes was a member of the Royal College of Surgeons in England, and Licentiate of the Society of Apothecaries in London in 1829; a member of the Royal College of Physicians in 1834; Fellow of the Royal College of Physicians in 1844; Senior Assistant Physician of Guy's Hospital in 1853; late Physician to the Surrey and South London Dispensary; and member and late President of the Hunterian Society. He was author of "A Clinical Introduction to the Practice of Auscultation, and other modes of Physical Diagnosis," and a contributor of various essays in "Guy's Hospital Reports," the *Medical Gazette*, and the *Edinburgh Monthly Journal*.

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THE

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NOVEMBER 15, 1858.

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Unstamped do. 4d.

**Richmond, Whitworth, and Hard-
wicke Hospitals.**

INTRODUCTORY LECTURE,

By D. J. CORRIGAN, M.D.,

Physician in Ordinary to the Queen in Ireland, &c. &c.

November 1st, 1858.

*Alterations in Management of Institution—Hos-
pitals for Industrial Classes—Resident Pupils—
Competitive Examination—Its defects—
Value of Resident Pupils in Hospitals—Army
Regulations—Present defective state of prelimi-
nary and Professional Education—Causes of
—New Medical Act—Conclusion.*

I have the honor this day of addressing a mixed audience, of students, of governors, and of gentlemen whose official positions, as well as charitable feelings, give them an interest in these hospitals, and of members of my own profession, including my colleagues, who kindly favour me with their encouraging presence on this occasion. This varied audience must be my excuse for observations which otherwise might appear to wear a discursive or ill-assorted connexion. Since I had last the honor of opening a clinical session, the management of this institution has been greatly altered. It was on the former occasion an institution managed through the machinery of the Poor Law Board, and under the immediate supervision of one governor—it comprised a complicated arrangement for the management of sick, of lunatics, and of foundlings. The result of the Parliamentary inquiry of 1854, and of the Act of 1856, was to place it on its present foundation, to relieve it from the complications which embarrassed it, and to enable it to have its whole machinery concentrated on its two proper objects—the relief of the sick, and the instruction of students in practical medicine and surgery. Government, in making this change, determined most wisely to vest its management in a mixed Board of professional and non-professional members. In adopting this principle of management, the Government adopted the prece-

dent set them by the other large institutions of a similar kind in the city—Steevens' Hospital, Sir P. Dun's, the Meath Hospital, St. Patrick's Asylum, and the Rotunda Lying-in Hospital—in all of which the Board of Management consists partly of medical officers connected with the institution and partly of non-professional governors. The experience of many years has shown that this is probably the best form of a Board of Management that could be devised. The non-professional members bring to the board all that general knowledge of finance, contracts, and books, without which no great institution can be economically or satisfactorily carried on, and with which professional men are seldom familiar, while the medical officers carry into its management that intimate acquaintance with details, which unprofessional persons with the best intentions could never acquire. I may, in some measure, feel myself qualified to give an opinion on these points, as the opportunities which I have happened to possess as a member of the General Board of Management of Dublin Hospitals, justify me in saying that the institutions under this form of board contrast favorably in several respects with others in which a different principle of management is adopted.

The arrangements and management of an hospital for the relief of the sick of the industrial classes, of those classes that form the great mass of our people, holding the middle place between wealth on the one extreme and pauperism on the other, require much consideration and tact. In workhouses and such other institutions, we deal with classes—in hospitals such as this we must deal with individuals, and with individuals who are as independent as ourselves through their honest labour while in health, but who cannot, when suffering under sickness or accident, provide themselves with such medical aid as they require, or even with necessaries. We are bound by policy as well as humanity to give them our best medical aid, and all the indulgence in our power, consistent with the maintenance of regularity, to maintain unimpaired the connexion and

intercourse between them and their families and their friends, and with increased comforts to make our wards approximate as much as possible to the sick man's home, so that he leaves them with all his social feelings unimpaired, and anxious again to return to habits of industry and independence; uninjured by associating with the indolent or depraved, whom he should herd with, in a workhouse, were separate hospitals not available for our hard working and honest labourers and mechanics; and when females are considered, the evils to them of workhouse contamination, apply with redoubled force. From the formation of the present Board of Governors up to the present time, their most unwearied attention has been given to every point that could promote education or increase the comforts of the sick. The number of resident pupils has been increased; a recreation park has been provided for the patients; a new laundry and kitchen have been provided, and an improved dietary established; increased inducements have been given to all the minor officers and servants for increased zeal and attention on their parts, by allowing them a more liberal scale of wages; and yet, such has been the attention to economy, that while carrying out all these improvements, the accommodation for the sick has been maintained throughout to its full extent. I have had opportunities since last I had the pleasure of addressing you, of visiting many of the great hospitals of France and Germany, at Paris, Vienna, and Berlin. I can now, with confidence, say that, in all essential particulars, our hospitals here—not alone this institution, but our hospitals generally—can fully stand comparison with their best. On the eye of the casual or unprofessional visitor, the statuary in the halls, the frescoes on the ceilings, and the waxed floors, produce an imposing effect; but these do not constitute the essentials of an hospital or give comforts to the patients. The casual visitor seldom goes beyond these; but when the professional scrutinizer enters into the details of ventilation, of cooking, of medicine, of clothing, of the numerous little, yet requisite, appliances for the sick, he then learns to value his own institutions more than before, and to find out that there is often little to be adopted from others. There is, however, one particular in which they do give an example, which, with advantage, might be adopted to a greater extent than it at present is in some of our hospitals—I mean the greater opportunities the foreign hospitals afford for the education of students as resident pupils, who, as such, acquire a practical knowledge of their profession, and an insight into hospital details which they cannot otherwise attain, and which are so requisite for them in after life. It very rarely happens that young men who have not been in those offices become eminent in their profession or efficient medical officers. In some institutions, such appointments are matters of purchase; and it may thus happen that the most deserving pupils who

have not sufficient means at their command are debarred from those opportunities for improvement. In this institution the offices of residents are open indifferently to the whole class, and we select every six months, that being the duration of holding office, from the class at large, choosing to the best of our judgment, those most competent for the office. This leads me to explain to you the circumstances which guide us in making our selection, and which it is necessary you should know.

In the present day, when the bent of the public mind has turned upon competitive examination for every kind of appointment, civil and military, it would naturally occur that examination as to respective degrees of knowledge, in other words, competitive examination, would afford the best test as to the eligibility of the candidates; but we tried it, and it failed, and for these reasons—the most flippant answerer, ground (you know what that means) to perfection, was very often the most wanting in all practical knowledge, and when brought to the bedside in emergencies of serious illness or accident, the most incapable in applying his knowledge. There are other equally important considerations which weighed with us in giving up competitive examinations. Far more than mere professional knowledge is required in the resident pupil of an hospital; we required other qualities—we required steadiness, attention, propriety of conduct, good temper, and kindliness of disposition and manner in dealing with the sick. Competitive examination gave us no insight into the possession of these qualities, and we knew—what will be admitted, I think, without question—that the possessor of these personal qualities, with a very moderate portion of professional knowledge, was of far more value than the possessor of the highest but purely professional attainments without these qualities. Hence, we felt ourselves obliged to discard mere competitive examination. Still it remained necessary to ascertain that the candidate possessed a competent degree of professional knowledge. The mode we have acted upon for a long time is this—We give abundant opportunities to all such students as desire it to become extern clinical clerks. This is a probationary stage, and it affords us the opportunity of judging if, along with a competent degree of professional knowledge, the candidate presents the possession of those other qualities to which I have referred. Pupils possessing those qualities are invaluable aids in hospitals, and while they, on the one hand, extract from such appointments the elements of future success, on the other hand, the public and the sick are deeply their debtors. There is no profession which presents among its students the same amount of devotedness in its pursuit as is presented in our profession. It is hard to overrate it. We have all seen resident pupils, night after night, without rest or pause, spending the wearisome hours watching by the bedside of some poor creature whose limb has been

amputated or main artery tied, and never for a moment faltering in their care until the critical moment had been passed; or at all hours of the night, careless of sleep, deprived of rest, ready to admit, at any moment, the victim of sudden illness or accident. Their lives have often been the forfeit of their duty; a year has seldom passed in which we have not had to deplore the death of some one or more of our most promising pupils; and it seems but as yesterday since several whom we instructed in this theatre have lost their lives in the Crimea, or perished in the massacres of India, and all have died at their posts.

As several of my hearers may be attending here with a view to preparing themselves for the army, it may be well to give them some information on the subject. Very lately the military authorities have improved the pay and position of army surgeons; and commensurately with this, and most properly, they have raised the standard of education. It is not sufficient that the candidate shall have obtained the diploma of some college or university in medicine or surgery; he must also, before being nominated for a commission, pass an examination before the Army Medical Board. But having passed this examination, do not suppose that the final ordeal is over; the last and most searching examination is yet to come. The candidate is next transferred to a large hospital, where, under the immediate inspection of experienced officers, he is required to perform many operations, from the simple manipulation of applying a bandage on the living patient, to the capital operations of surgery on the dead body; and in the medical wards he is required to go to the bedside and note cases of internal disease, with the diagnosis, and prognosis, and treatment. Many young men who have thought themselves safe in obtaining their diplomas, and passing the verbal examinations before the Army Board, have failed to pass the final test, and have had their hopes blasted for life. The two great deficiencies which have caused the failure of success in the final examination are, want of preliminary education, and want of practical knowledge of their profession; and let me impress these two facts upon all those of my hearers who may propose to themselves to make the army their career in their profession: if your writing be illegible, if your English composition and spelling be incorrect, if your style be obscure, you are most properly not deemed competent to draw up cases and reports, and you are rejected. If, on being tested at the bedside, you show that you have not been practised in examining cases—that your knowledge is merely book memory—rejection will be your lot. The first of these essentials, a good preliminary education, you cannot get here; and if there be any who do not possess it, I would earnestly entreat of you to postpone the prosecution of your profession until you have acquired it. With regard to the second, the acquirement of practical knowledge, you will have only yourselves

to blame if you are deficient; the opportunities are at your command. There is not a pupil of the numerous class here who may not have such opportunities if he desire them; and believe me their value cannot be over-rated. Within the last year a pupil educated here—and many of my hearers know the incident—passed the Army Medical Board, and was, with a host of others, transferred to Chatham, for the final and practical hospital test. He had little expectation of soon obtaining an appointment, for many were before him, with influence which he did not possess. He was directed to note some cases, as I have already described to you. Before he finished his whole number he was told by the senior officer, who was looking over him as he wrote, that he need go no farther, and within a fortnight he was appointed to the Artillery. That young gentleman was a clinical clerk here, and when put to the final test, at once showed that he knew what he was about, for he had worked practically in the hospital wards. No amount of grinding will enable you to stand this test. You must also be prepared for this, that even if you have obtained your commissions, it will not follow that your promotion will go on in rotation, unless you possess the double qualification of a good preliminary education and professional knowledge. If your preliminary education be deficient, if your reports are defective in style or clearness, you will be passed over, and your hoped-for promotion long delayed, or never attained, with the mortification of seeing your juniors promoted over your head.

I wish I could congratulate the profession or the public on the standard of education in the profession improving of late years. I am sorry to say the reverse is the fact, and that, on the contrary, in preliminary and professional education, there is, generally speaking, a great deterioration; and so much is preliminary education now disregarded, that young men enter on the study of our profession ignorant of the commonest rules of English composition, and of the simplest elements of a good general education; with a preliminary education so defective that they could not pass an examination for the humblest clerkship in a public office; while, for the professional part of their examination they give themselves as little trouble, as they know that without the possession of practical knowledge they may rest perfectly assured of obtaining a diploma that will carry a legal qualification for civil offices. Where does the blame of all this rest? Not with you, or your parents or guardians. The diploma recognized by law is what is sought for, and if you are able to obtain that, with a certain trifling amount of education and mental labour, it is scarcely reasonable to expect that you should incur more. Let us go a step farther.—Are the colleges and universities who give the degrees to ill-educated candidates, and on deficient examination, culpable? Perhaps to some extent, but not nearly to the extent that might

appear at first sight. There are about nineteen of them in the United Kingdom; many of them are dependent mainly for their income on the fees received on graduation. Some one college came down a little in its standard of education and in its examination, to attract students in preference to it: students flocked to it. Some other college or university next came down a little below the first, to attract students in turn. Another and another followed in the same course. Step by step each college descended below its neighbour in the sliding scale, until it has come to this, that now a candidate rejected at one college has beforehand prepared for his immediately setting out for the next lowest in the scale, that will gladly sell its diploma on easier terms. This is the present state. Who is to blame for this? Neither students nor colleges, but a higher power than either—the legislature, that permits this discreditable state of professional education and examination to continue. If it merely concerned the profession itself, the legislature might very justly say—Look to your own professional interests, and take care of yourselves. But the question is not of this nature, it concerns the public much, the profession little. As the law at present stands, the legislature, by declaring all diplomas equal, gives those entering our profession no inducement to acquire a high education. It would be unreasonable to expect a student to spend additional years, and incur additional expense in preliminary and professional education, when he can command an equally legal status, with none of the former and very little of the latter. There is, however, strange as it may seem, but not the less true, a premium on a low qualification, for at the present time, in Ireland, the holder of the lowest diploma in the United Kingdom can hold public appointments from which the possessor of the highest education is excluded. These evils have not so immediately come under the observation of our legislators as they might, probably from the circumstance that they always see, in large cities, a number of highly-educated men; and such will always be the case. In large cities there will always be found, independently of all legislation, highly-educated physicians and surgeons, because the prizes and position of professional eminence, and the competition consequent on these, will always insure intellectual exertions that will not be called forth under other circumstances.

A bill has recently come into operation—"The Medical Act" of last session—which, it is hoped by many, may remove some of these defects I have noticed. I hope so, but I am not so sanguine as to its results. It declares that unqualified persons shall not assume the title of qualified persons; it provides against the efforts of quacks to get within the circle of the profession; but I cannot discern, what in my opinion is much more needed, any efficient guard against the entrance of ignorance and incompetence into the profession itself. There is

no directly controlling authority to prescribe a fitting education. There is, it is true, a privilege given to the Medical Council to report to the Privy Council on any colleges that may not, in their opinion, maintain a sufficient curriculum and examination, with a view to such colleges being disfranchised; but when it is recollected that such council will mainly consist of representatives from all the colleges, it seems rather much to expect that the representatives of the colleges called in question will concur in such report, and Marcus Curtius-like, devote themselves and their institutions to self-immolation for the public good; and the Privy Council may be very reluctant to decide between the contending parties, or to take so serious a step as disfranchising a college. But, although the bill in its present form may be defective, it will become, I trust, the foundation on which the legislature may be able to raise a good measure. I would now, in conclusion, and in entering on the business of the session, wish to impress upon you the great importance I would attach to the habit of cultivating a habit of diligent and accurate observation. Observation of facts may seem to some one of the simplest faculties of the mind, yet it is the rarest, the most difficult to acquire, and the most needed in the practice of our profession. Valves in the veins existed as long as animal life existed, yet it needed the accurate observation of their form and direction, by Harvey, to determine the circulation of the blood. The blue hair-line on the gums, the result of lead poisoning, remained very long unknown, because our observation had not been sufficiently precise and diligent. For ages, measles and scarlatina, now universally known as diseases distinct in their nature, in their danger, and their treatment, were confounded together. The peculiar sounds, which are generated within air-tubes and blood vessels, must have existed contemporaneously with the lesions producing them, yet they remained undiscovered until of late years. These instances—I could multiply them to a great amount—all seem very simple now, when known to us; yet, think how long they escaped our notice for want of diligent and accurate observation. You will, I am sure, gentlemen, be actuated in the prosecution of your studies by a higher and better object than the mere acquisition of a diploma; by a desire to fulfil creditably the position in life which you have selected for yourselves, and to possess a well-grounded knowledge of your profession, so that, in after life, you may never have to reproach yourselves with culpable ignorance. For all who have undertaken responsibilities connected with the institution, in our several capacities of governors or instructors, I know that I may confidently say we are all only animated by the one desire of truly fulfilling the trust the State has reposed in us, of ministering to the requirements of the sick, and of maintaining the efficiency of these hospitals as a great educational institute. And here I should not do justice to my

own feelings, and those of my fellow-governors and colleagues, if I failed to omit the gratification of our having a nobleman here this morning, whose name is so intimately associated with the preservation of our hospital grants—Lord Naas, our present Chief Secretary for Ireland—who took up the question when success seemed almost hopeless, and as chairman of the parliamentary committee conducted the inquiry to a favourable result, who will see this day the good fruits of his exertions, and I trust be satisfied with his examination of the condition and working of the whole institution.

CLINICAL OBSERVATIONS

ON INJURIES AND DISEASES OF THE URINARY ORGANS,

ILLUSTRATED BY CASES.

By CHRISTOPHER FLEMING, M.D., M.R.I.A.,

Surgeon to the Richmond Hospital.

Obstructions in the Urethra, from violence applied to it.

Obstructions in the urethra from the above cause, may be the result of injuries applied from without or from within that canal, such as contusions or wounds from ordinary accidental causes, complicated or not with fractures of the pelvis—false passages contingent on catheterism—or laceration, or other traumatic lesions connected with the escape of calculi, or with the operation of lithotripsy.

The following cases will tend to illustrate this:—

CASE 13.

Contusion of Perineum—Ecchymosis of Scrotum and Penis—Partial Retention of Urine.

A baker's boy, aged between 17 and 18 years, and in good bodily health, whilst in the act of stooping forwards, was kicked in the perineum from behind, by a fellow-workman; he became faint and sick at the moment, and suffered very great pain in the seat of the injury. I saw him about six hours afterwards, he was in a state of partial collapse, had not passed any urine, was afraid, and expressed himself as unable to do so. The scrotum was largely swollen, and the adjoining part of the perineum equally so, and there was pain and considerable hardness on pressure. There was no bleeding from the urethra; he had not not any desire to pass water immediately after the accident, but now the desire was urgent, and the bladder was full of urine. Any general symptoms present were fairly attributable to the shock and fright of the accident. During my visit I induced him to pass water in the erect posture, and he succeeded in doing so. The urine escaped very slowly, without much pain, and was perfectly natural. I sent him to hospital, with strict injunc-

tions, that under no circumstance should a catheter be introduced without special application to me. Treatment suited to the case was directed, and next day I found that he had emptied his bladder, and was free from any suffering of moment. There was no increase in the swelling of the scrotum or perineum; the skin of both, and that of the penis, were almost perfectly black with infiltrated blood. From day to day the usual changes in its colour took place, and no complaint was made to merit notice. At the end of a fortnight he left hospital, a catheter having been introduced on two or three occasions beforehand, to secure the integrity of the canal of the urethra.

I assumed, from the symptoms attendant on this case, that there was no absolute injury done to the urethra, that any obstruction to its tract arose from blood extravasated on its outer surface, and that in proportion as the immediate effects of the injury subsided, and that the blood was absorbed, perfect restoration would be established. To have introduced a catheter at the time of the accident would have been worse than hazardous, as, no matter however gently managed, it might have injured the urethra.

CASE 14.

Laceration of Perineum—Exposure of Urethra—Partial Retention of Urine.

A countryman, aged 26 years, and in good health, acting as hodman to a mason, lost his footing, and falling down a flight of six or eight stone steps, unprotected by a balustrade, struck his perineum against the edge of the last step, while his thighs were widely separated. He had the sensation at the time as if the urethra was burst, and that the urine had escaped through the rent. His clothes were saturated with blood, and on examination a wound was found to occupy the whole line of the raphe of the perineum, and so deep as to expose the tract of the urethra to the vicinity of the bulb. The hæmorrhage had been very profuse, and the man was so positive as to the passage of urine by the wound, that a catheter had been passed previous to my visit to hospital, as a protection against it. There was then pain in micturition, and some little difficulty, but there was no absolute retention of urine. An attempt was made to heal the wound by the adhesive process, suppuration, however, took place, and cicatrization was very slowly accomplished. There were no symptoms of urethritis at any period of its progress. Towards the latter stages of the healing of the wound a full-sized silver catheter was occasionally introduced into the bladder. The man left hospital when the wound was almost cicatrized, but he returned after about a week, complaining of irritability of the bladder, and asserting that urine did pass through the tract of the wound. Some uneasiness was felt as a catheter traversed

the seat of the injury, but I could never discover that any absolute communication existed between the canal of the urethra and the wound. After about ten days he was discharged well.

CASE 15.

Injury of Penis.—Laceration of Urethra.—Retention of Urine.

A man of middle age, and rather full habit, had some dispute with a woman on the town, in whose company he was; she caught his penis, then in a state of erection, and gave it a sharp twist. He suffered very great agony, and after about eight hours I saw him with retention of urine. The penis was generally swollen, but especially so in front of the scrotum, where was visible to the eye considerable fulness, tolerably circumscribed. The areolar tissue of the scrotum was not involved in it, but the natural angle between the penis and scrotum was totally effaced by it, so that the organ had a sort of fixed inclination upwards. There was much increase also in its transverse width at this special situation. Considerable hæmorrhage had taken place from the urethra at the time of the accident, so much so as, in addition to the pain he suffered, to produce very much prostration. I passed gently into the bladder a gum-elastic catheter without a stilet, drew off a large quantity of urine, retained the instrument, and had moderate compression made around the swollen part of the penis with strips of lint wet with the ordinary saturnine lotion. By rest, by restricted diet, and by mild, cooling medicines, recovery took place after about ten days, when the man left hospital, the whole penis and scrotum, however, being largely ecchymosed for a much longer period. I may remark, that after thirty-six hours the catheter passed, was removed, being subsequently only occasionally introduced, during the progress to cure.

CASE 16.

Contusion of Perineum.—Rupture of Urethra.—Ecchymosis of Scrotum and Perineum.—Retention of Urine.

A young man, aged 19 years, of middle height, and slight frame, a teacher in one of the educational establishments, retired to bed, having passed his urine immediately beforehand; shortly afterwards he was aroused by a storm, and apprehensive that the sash of a window over his bed would have been burst in, he stepped up, in the dark, on the iron top-railing of his bed, to secure the sash, alighted, and fell astride on the naked perineum, striking it with great force against the rail. Not wishing to disturb the school, he spent a comfortless night in great pain, felt a swelling quickly growing up in the perineum and scrotum, and in the morning,

when light appeared, found his shirt stained with blood, and blood oozing from the orifice of the urethra. He now for the first time had a desire to pass water, and failing in his efforts to do so, although he had the sensation as if the urine was escaping, assistance was procured, and the treatment not having been successful, I was sent for about eighteen or twenty hours after the accident had occurred. He was in great pain; his countenance was pallid; his pulse was feeble; and his whole aspect characterized great suffering. The scrotum presented the appearance of an enormous bag, irregularly distended, with blood, half fluid and half coagulated; the fore-part of the perineum was equally swollen; and the swelling in each had much increased since his efforts to pass water. The penis, as far as its scrotal portion, was nearly double its natural width even in the flaccid state of the organ, from a similar extravasation, and bright blood trickled in considerable quantity from the orifice of the urethra. The finger within the anus detected a fulness which wholly concealed the outline of the bulbous and membranous portions of the urethra, and also of the prostate gland, and gave a distinct crackling feel on firm pressure.

The bladder was tensely distended with urine, up to the region of the umbilicus, and the boy was making incessant and fruitless efforts to empty it. I took a gum-elastic catheter, between No. 6 and 7 in size, provided with a well-secured but slight stilet, and passed it into the bladder without other obstruction than the sensation which compressing some arrowroot between the fingers would communicate to them. About a pint of healthy urine was drawn off, the first gush alone being tinged with blood—the catheter was secured in the bladder—the most perfect rest and quietness were enjoined, and restricted diet and the usual antiphlogistic treatment were adopted. The scrotum and perineum were loosely supported, and constantly kept cool with repeated bathings of lead lotion, and the urine was not allowed to accumulate in large quantity in the bladder. To trace the daily progress of the case would be tedious; suffice it to say, that a class of pupils as attentive as they were intelligent, witnessed it, and that at the end of three weeks this enormous extravasation of blood was absorbed, and the normal condition of the parts restored. Not a particle of suppuration took place, and the man left hospital with his urethra entire, and freely admitting Nos. 8 and 10 catheters previous to his discharge. Four or five months afterwards he reported from the country, where he is now located, that he had perfectly recovered, and that he had followed the directions given, that a catheter should be introduced into the bladder at lengthened intervals, in order to secure the integrity of the canal of the urethra.

CASE 17.

Rupture of Urethra from fall on Perineum—Extravasation of Blood and Urine—Retention of Urine—Gangrene of Scrotum.

The master of a collier, about middle age, very full and bloated in appearance, whilst intoxicated, fell straddle-legs on the side of the hatchway. He was carried to bed, and next morning, when he awoke, he found that no urine escaped, although he had the sensation as if it was passing along the urethra. Under these circumstances I saw him on board his vessel, about twenty-four hours after the accident. All the symptoms of ruptured urethra were manifest; the scrotum and perineum were perfectly ecchymosed, and enormously swollen, and blood was flowing from the urethra. He was not yet perfectly free from the effects of drink, and was straining and forcing to empty his bladder, which could be felt distended nearly to the umbilicus. At the time there was no alternative but to relieve the retention of urine. A medium-sized gum-elastic catheter was introduced without much difficulty, and not less than a pint and a half of urine, unmixed with any blood, except at the commencement, escaped. The catheter was secured in the bladder, and directions were given to report the progress of the case. They were neglected; drunkenness was renewed; and when application was next made, after the lapse of forty-eight hours, the scrotum was one gangrenous pul-taceous mass, and urinary typhus had set in. There was no absolute retention of urine, and the urine flowing tolerably freely through the catheter, it was allowed to remain until the man was transferred to hospital; the requisite local and general treatment were there adopted; and, strange to say, he battled through a very severe attack, with the usual sloughing results, leaving with a perineal fistula, at the end of a fortnight, but yet with the urethra tolerably pervious.

CASE 18.

Fracture of the Pelvis.—Displacement of the Urethra.—Retention of Urine.

A boy, aged seven years, carelessly playing in one of the public streets, was thrown down by a baker's cart, heavily laden. The wheels of the cart were stated to have passed over his body; he was rapidly taken up by some of his comrades, and carried home. No ostensible mark of injury was stated as being visible, but he was unable to walk or move about after the accident. Next day he was brought to hospital, labouring under retention of urine, the rational and sensible signs of which were quite evident. The accident had occurred about six o'clock in the evening, and advice was sought for about twelve hours afterwards. No marks of contusion were traceable on

the surface of the trunk, or on that of the extremities, and no fractures were discoverable. There was no hæmorrhage from the urethra, and the desire to pass urine had only supervened within the last four hours. The presence of fracture through the pelvis was suspected rather from negative than from positive signs—in addition to others, special adjustment of the position of the pelvis being requisite in the introduction of a catheter, from the difficulty encountered about the region of the arch of the pelvis, as if some displacement of the urethra existed there. From day to day it was necessary to draw off the urine until about the sixth, when the bladder had somewhat recovered the power of discharging itself. There was blood in the urine at each time of its discharge, but so small in amount that its presence could be only detected under the microscope.

The more minute details of the case are elsewhere given;* suffice it to say, for present purposes, that it terminated fatally, and that several fractures of the pelvis existed, which, apart from other effects on the bladder, must have deranged more or less the normal tract of the urethra.

CASE 19.

Fracture of the Pelvis.—Transverse Rent of the Urethra.—Retention of Urine.

A man, aged between 45 and 50 years, and apparently of delicate frame, whilst employed in the sewerage of one of the streets in the city, was crushed under a bank which had given way. He was carried to the hospital on a bier, in a state of perfect helplessness and extreme collapse. When placed in bed, in addition to other superficial injuries, it was found that the integuments of the penis, scrotum, and perineum were enormously distended with blood. The region of the bladder was full and tense, and on each side there was also abnormal fulness, with dullness on percussion. Each inguinal canal was distended, and partially ecchymosed. The poor man was evidently sinking as well from general collapse as from symptoms of internal hæmorrhage. His intellect was clear, and he complained, as his main suffering, of a great desire to pass his urine, and inability to do so. Blood, semi-fluid, was now found trickling from the urethra, and pressure along the perineum materially increased it, when again and again it continued to flow. A gum-elastic catheter of ordinary size being introduced, it reached about the region of the bulb, when an enormous gush of what appeared to be bloody urine escaped through it, relieving the poor man from his more painful sufferings. The catheter, however, did not satisfactorily enter the bladder, neither, by any expedient, could that object be accomplished; and it was remarked that a large un-

* See *Dublin Medical Press*, vol. 35. p. 241.

dulating bag of fluid was easily traced by the finger in front of the rectum, and that it completely masked the prostate gland. Fatal collapse soon followed, and on subsequent examination it was discovered that the urethra was completely rent across at the junction of its membranous with its prostatic portions; that an enormous pouch was here formed, communicating with the perineum and scrotum in front, and with the fore-part of the rectum and base of the bladder behind; that into this pouch a catheter passed through the urethra had entered; that behind the abdominal muscles a vast sheet of blood, with urinous odour, existed; that the chord and inguinal canals were equally injected with a similar fluid; and that the bladder lay partially flaccid, as if embedded in this enormous bath of blood, its anatomical connections being rent by fractures of the pelvis on each side, whilst its walls were otherwise uninjured.*

It may appear, on a superficial view, that some of the cases which have been detailed above are not exactly referable to the class of injuries under which they are noted; each case, however, tends to illustrate the different effects of violence applied to the urethra from without, the obstructions which they may give to the current of urine through that canal, and the modes whereby relief may be afforded. Be the effect mere contusion, or be it rupture or laceration, an amount of mischief is done which demands much caution in treatment. Attention to details will teach the surgeon the impropriety of unnecessary interference, by introducing a catheter in one class of case, and the great value of promptness as regards it in the other. Apart from the consideration of age and habits of life, his success, in the onset, will be very much influenced by the interval which may have elapsed between the first effort on the part of the patient to pass his urine, and the period of the occurrence of the accident. The longer that interval, the greater the prospect of escape from those casualties which must otherwise arise. Unfortunately, however, an urgent desire to pass water is amongst the first symptoms attendant on this class of injury; and hence the great hazard of those frightful consequences which so often ensue. In the more favourable cases, the areolar tissue surrounding the seat of the injury becomes almost instantaneously injected with blood which is effused at the time of the accident, and gives a protective coating to the tissue; the conditions of the rent in the urethra are also altered; and so, not alone are the injurious effects of the urine extravasated, materially modified, if not prevented, but its amount is neces-

sarily limited. The satisfactory issue, as in the case No. 16, where unquestionably urine had escaped through the ruptured urethra, is by no means an unfrequent occurrence, and should encourage the surgeon to avoid extreme measures while any favourable prospects present themselves.

The possible complication of those injuries with fractures of the pelvis is of great import to bear in mind, as it requires most accurate diagnosis, and thus prepares the surgeon for the perplexing contingencies which he may have to contend with. Not the least remarkable circumstance connected with this class of injury is the great analogy existing between the extravasations of blood attendant upon it, and those urinary extravasations or suppurations, diffused or circumscribed, which occur in the progress of urinary diseases, and are accompanied or not with urethral rupture. In fact, substituting blood for urine or pus, identical local effects will be produced by them. Sometimes obvious in the scrotum or perineum, they are only to be found when sought for, perhaps partially encircling the anus, and extending in front of the rectum behind the base of the bladder; or again, limited in a great measure to the anterior aspect of that organ, and wholly concealed from our view, absolutely welling the areolar tissue behind the abdominal muscles, and along the tract of the inguinal canal, with blood. There is much room for investigation of this subject in connexion with fractures of the pelvis in particular; and that the urethra should be rent across—nay, more, that the bladder should be even torn at its neck from the urethra—is not surprising, when we consider the extent and course of many of these fractures. The bones of the pubis, each of which is so much identified with the integrity of the urethra, are often absolutely torn from their adjoining bones, only retaining their normal connexions at the symphysis; and in crushes and falls on horseback, or in severe violence from other causes, it is quite intelligible how frightful must be the injuries done to the softer structures, from the traction and laceration to which they are subjected under such conditions. It is not always easy to ascertain satisfactorily the absolute anatomical characters of those injuries in detail; even in the healthy relations of the pelvis, it is difficult to detach the bladder and urethra from their bony connexions, and when those bones are fractured and displaced, and the vessels and soft parts torn and lacerated, that difficulty must be materially increased.

The special symptoms and the sequelæ of those very complicated and serious injuries do not exactly fall under present notice; their treatment must be guided by general principles—their results are often very remarkable.

* There are some excellent drawings and specimens of those important accidents in the Richmond Hospital Museum. The drawings were taken from life, by Mr. Conolly, and they are most accurately and most beautifully delineated. Cases Nos. 14, 15, 16, and 18 are illustrated.

At a meeting of the Royal Dublin Society, held on November 11th, EDWARD W. DAVY, Esq., was elected Professor of Agriculture and Agricultural Chemistry to that influential body.

Meath Hospital.**A CASE OF
RETAINED MENSES FROM IMPERFORATE
HYMEN; WITH REMARKS.**

By Dr. LEES,

Physician to the Meath Hospital; Lecturer on Prac-
tice of Physic.*

Catherine Mooney, aged 18, a delicate-looking girl, very pallid, and small for her age, was admitted to the Meath Hospital, under the care of Dr. Lees, complaining of pain in the back and a swelling in her right side. She says that about four months ago she was attacked with pain in the lumbar region, which recurred every three or four days, for the period of a month; that the abdomen then began to swell, and the pain in the back became more severe and constant, recurring every day, and lasting for several hours, but she never had nausea or vomiting. On admission her countenance was expressive of much suffering; she lay on her left side, with her legs drawn up, and complained of severe pain in the lumbar region.

On examining the spine, there is no curvature nor any tenderness on pressure, but there are two cicatrices on each side of the eighth dorsal vertebra, which look like the marks of badly-inserted issues, but which she says are the remains of swine-pock. On examining the abdomen, the recti muscles are found to be rigidly contracted; a tumor can be felt to the right of the umbilicus, and there is a general sensation of hardness all over the lower part of the abdomen, which is universally resonant on percussion. Pressure on the abdomen gives her great pain, but which is referred entirely to her back. Her tongue is furred; skin perspiring, pulse 104, bowels costive, and urine scanty.

She was ordered a mild purgative, and poultices to be applied over the abdomen. She remained quiet during that day, but at night the pain in the back recurred with such severity, as to require an opiate. Next day Dr. Lees ascertained that she had suffered for the last month from great difficulty and pain in passing water; that she had never menstruated, but that she had bled from the nose twice lately. He then made an examination *per vaginam*, and detected a soft elastic tumor in the vagina, which, on separating the labia, appeared like a fleshy mass formed by the imperforate hymen, protruded forwards by the retained menstrual secretion. She was now placed on her back, the labia separated, and having put her under the influence of chloroform, Mr. George Porter made a crucial incision into the protruding membrane, when there gushed out immediately about a quart of thick chocolate-coloured fluid, devoid of any

smell, and without any clots. A soft pad and bandage were now applied over the uterus, and she was left quiet. She had no return of pain, slept well, and next morning Mr. Porter passed a syringe into the opening, injected warm water into the vagina, and then inserted a piece of oiled lint into the opening, to prevent the wound from closing. This was removed the next day, but being neglected to be inserted, on the following day the pulse became quick, and there was some fever on the day subsequent, when, on examining the wound and making her cough, some fetid pus escaped through the opening. She was now syringed every day with warm water, a fresh tent daily introduced, and she left the hospital on the seventh day after the operation, perfectly well.

I think this case is worth recording, from the difficulties it presented in the diagnosis, whether we regard the symptoms complained of, or the information to be derived from the physical examination of the abdomen. The girl made no allusion to the menstrual function till questioned on the subject; the mammae were well developed; she never suffered from sickness of stomach, and referred all her sufferings to her back; and though she winced so much, and appeared to suffer such pain on pressure being made over the abdomen, that one of our most intelligent pupils suspected there was peritonitis, yet, on examining her closely, I satisfied myself that the pain, on pressing the abdomen, was all referred to the back. My first impression was, that it was a case of psoas abscess, and the presence of a tumor in the right side of the abdomen, similar to what I have felt in some such cases, confirmed me in that opinion; but the absence of any angular curvature, of any tenderness on pressure, or of any arching of the spine when the limbs were extended, made me abandon that idea.

As regards the physical examination of the abdomen, the great rigidity of the recti muscles, the absence of any well-defined tumor in the hypogastric region, the presence of a tumor to the right of the umbilicus, and the resonant sound on percussion all over the abdomen, are interesting and curious facts in the history of the case, but of which I satisfied myself by repeated examinations, and demonstrated to the pupils, and several medical friends whom I had invited to see the case. In fact, but for the detection of the vaginal tumor, I should have hesitated to give a positive diagnosis from the symptoms complained of, or from the physical examination of the abdomen. The febrile exacerbation, and the collection of purulent matter behind the opening, from neglect of one day's careful cleansing, shows the necessity of careful attention to the after-treatment of such cases; and as many of them have died of peritonitis or of pyæmia, it may have been owing to some fault of this kind that fatal results have occasionally followed such a simple operation.

* Reported by Mr. PATRICK C. BAXTER, Clinical Clerk.

CASE OF LARGE ARTERIAL NÆVUS OF THE HEAD.

By W. COLLES,

Surgeon to Steevens' Hospital.

The patient is about 18 years of age. When admitted into Steevens' Hospital, the integuments on the right side of the head were elevated very considerably above the natural level; the swelling occupied the entire of the parietal bone, and measured six inches from before backwards, and about four from above downwards; in front, it is raised about half an inch above the surrounding parts, while posteriorly and towards the vertex the projection exceeds an inch in height. The entire surface is of a dusky red hue; a great number of minute tortuous vessels may be very readily seen running on the surface; interspersed are several small ulcerated spots, about the size of a split pea, and one larger ulcer on the top of the most prominent portion of the tumor. Those ulcers generally discharge a thin watery fluid; but at times a profuse bleeding occurs from one or more of these ulcers; any sudden exertion, even the act of stooping, may give rise to it; removing the dressings was always attended with considerable loss of blood, and at times it would occur when the patient was perfectly quiet, without any assignable cause. He has frequently been awakened from his sleep, and found his pillow deluged with blood; this hæmorrhage frequently produced syncope, and at times was with difficulty arrested.

On watching one of those ulcers we would at times observe a small ash-coloured sloughy point protrude; a drop of blood would ooze from the edge of this, and be followed by a stream of bright red blood, which would come, not in jerks, but more in waves.

On applying pressure to the tumor, if moderate, a slight thrill, synchronous with the pulse, might be perceived; if strong, it would cause a gradual sinking or emptying of the tumor, which would fill and rise again, on removing it; no decided bruit could be heard by the stethoscope. Several large and tortuous arteries, generally about the size of the radial, could be felt going to the tumor. We could distinctly trace on each side the temporal, occipital, and auricular arteries.

He states that at his birth a small tumor was observed in the head; this gradually increased, and began to bleed. He has spent much of his life in seeking relief, and has undergone many plans of treatment. Fifteen years ago, pressure was fully and fairly tried; about ten or twelve years ago, the posterior-auris artery was tied; on this failing, the carotid artery was ligatured, both operations affording only temporary relief.

He is much exhausted by the continued drain on his system, and is in constant dread lest the next hæmorrhage may prove fatal.

The first and most plausible plan of checking these hæmorrhages, and arresting the growth of the tumor, was to cut off the supply of blood, by tying these six arteries at one time. As they were evidently in an abnormal condition, and very large, I did not like to adopt the tedious and dangerous plan of dissecting and ligaturing each. I therefore resolved to arrest them by a needle under each, and thread twisted over it; these I applied at the edge of the hairy scalp, as being far from the most diseased portion of the vessel, and as less likely to be followed by a second hæmorrhage; these were at first very inconvenient on his lying down, but gave little or no pain; they entirely arrested the flow of blood through the vessels. The bleeding for the first week was much moderated, but it again returned, and on examination, we found the pulsation had returned in the arteries below the ligature and tumor, thereby showing that there was a supply of blood going to the tumor, independent of those vessels; and the free anastomosis allowed the current of blood again to fill those which we had tied. I therefore determined to try to more effectually cut off the supply of blood. I for this purpose passed a number of needles, each three inches long, close to the tumor, the entrance of one anterior to the exit of the preceding, so as to leave no possible space through which an artery could pass. I twisted a strong ligature firmly round each needle, separately, so as to strangle all parts above it; I used fourteen needles to complete the circuit of the tumor; the needles previously passed under the arteries remained in for three weeks before they caused ulceration and were removed; those near the tumor remained in for upwards of six weeks, without cutting out or causing much ulceration or inflammation. Soon after passing the needles, the centre most prominent portion of the tumor began to ulcerate; the ulceration however we were gratified to find was not attended with any hæmorrhage, and soon put on a healthy aspect. Finding this plan of treatment so far successful, I thought we might now act more on the diseased part itself, having less dread of hæmorrhage. I therefore passed a seton of silk across the tumor, and another at right angles; these remained in four weeks, but did not excite any inflammation; I therefore drew them out and soon after passed worsted threads steeped in sulphate of copper solution, in the same place; these seemed also inefficacious. After allowing them to remain in for four weeks, I endeavoured to remove them, but the threads broke off close to the tumor; however, in about two weeks after inflammation and suppuration supervened, and on giving exit to the abscess, the ligatures appeared and were removed. Each trajet of the seton led to the central abscess, under the prominent part of the tumor; these were constantly injected with nitrate of silver, or sulphate of iron solution, and at times, a solid stick of caustic potass was passed along them to keep up the inflammation, and to endeavour to

consolidate the diseased structure. As the superficial ulcer began to close, and there was no return of bleeding, the ligatures were all removed. After four months all treatment was laid aside; the anterior portion of the tumor became firm and healed, but no hair grows on it; posteriorly there is some elevation, but giving every prospect of consolidation and cure.

In this case there were some considerations interesting to the surgeon. The size of the tumor precluded any idea of removing the entire by knife, caustic, or ligature, as the immense size of the surface left exposed could not be expected to cicatrize, and would, most probably, be attended with affection of the bone, or even of the internal parts. From the nature of the tumor we could not also determine how far the disease might have implicated the bone, or formed communication and be fed from the vessels on the dura mater, as we know has been observed in cases nearly similar. However, our efforts were at first directed to the parts surrounding the disease; and not until these had failed should we have acted on the diseased structure.

It is very remarkable in this case the slowness of the parts to undergo the process of inflammation; the needles and seton remained in some nearly two months, and had then to be removed. It would be useful to find if such an insensibility to stimulating agents were generally observed in such form of disease, as it would have much influence in directing the surgical treatment.

ON THE OPHTHALMOSCOPIC APPEARANCE OF THE NORMAL EYE.

By J. G. HILDIGE, M.D.

Whether the eye be examined in the upright or inverted image it requires a considerable amount of practice and tact to enable one to observe minutely the different internal parts, without causing uneasiness to the patient.

All eyes are not examined by the beginner with the same facility. In a normal eye the retinal vessels and optic papilla are more readily seen than in a presbyopic one, and in an eye that is myopic they are more easily examined than in either. The reason of this is obvious: the rays of light from a myopic eye are more convergent than those from a normal or presbyopic eye; so that the examiner can, in most cases, distinguish the internal parts in the inverted image, without the aid of a convex lens.

In order to examine an eye with the ophthalmoscope, the lamp should be placed slightly behind and on a level with the eye that is to be examined; the examiner should be seated a little higher than the patient. If it be the right eye that is to be examined, the patient must look at the right temple of the examiner, in order that the optic

papilla, which is placed slightly to the internal side of the centre of vision, may be brought to view. The colour of the ground of the eye, when viewed with the ophthalmoscope, is generally described as an orange yellow. This however depends to a very great extent on the kind of light that is employed, as, for instance, when examined by daylight it is of a sapphire blue colour, and when an oil lamp or gas is used, it is of a brownish orange colour; and this refers to the eye of the rabbit, fowl, and frog, as well as to the human eye. The intensity of this reflection varies however in different subjects; in the south of Italy, for instance, where the inhabitants are, generally speaking, of a dark complexion, the ground of the eye presents a much deeper tinge than that observed among the greater number of people in Austria and Prussia, who, as is well known, are fair. This colour is not however equal over the whole of the internal surface of the eye; the parts bordering on the entrance of the optic nerve are much darker, owing to the greater quantity of pigment in this situation. It is also apparently much darker in the neighbourhood of the macula lutea, but this is caused by the reflection from the cornea, and it vanishes completely when the light is reflected obliquely into the eye.

The optic papilla (so named on account of its apparent projection from the level of the ground of the eye) when examined in the inverted image, appears generally about a quarter of an inch in diameter, and is of a greyish yellow colour. The arteria centralis retina, and its accompanying vein, are seen in the centre of it; the artery is small, of a pale colour, and internal to the vein, which is much larger, and of a reddish brown colour. Their branches are tolerably regular—one going upwards, another downwards, and a third outwards. A branch of the vein accompanies each branch of the artery. The form of the optic papilla is circular, and its edges are well defined. In some cases I have observed its external boundary much better developed than the internal; and this was not a pathological condition, for vision was not at all impaired. In the rabbit, the optic papilla appears excavated, instead of convex, and this is the case in various other animals.

The retina, in the healthy state, is not visible with the ophthalmoscope, and its situation can only be inferred from the course of its vessels. When these are examined attentively, they appear as standing out from, and anterior to, the ground of the eye, or as Jäger says,* they appear as if drawn on glass. They commence their bifurcations in the centre of the optic papilla, and proceed, dividing dichotomously, until they arrive in the neighbourhood of the macula lutea, where they become so fine that it is impossible to follow them. I have never been able to detect pulsation in them in the

* Die Ergebnisse der Untersuchung des menschlichen Auges mit dem Angenspiegel, von E. Jäger.

healthy state, but when pressure is made on the eye, or when exudation is formed in the retina, resulting from diabetes, Bright's disease, or the glaucomatic process, it is of frequent occurrence. The arteries run a less zigzag course, and their *contour* is much darker than their centre; the veins on the other hand are much broader, darker, and not so sharply defined. The capillary vessels of the retina cannot, of course, be seen in their normal state; but in cases of chronic inflammation of this membrane, they are seen covering the whole of it with a species of net work, which is better defined in the neighbourhood of the optic nerve than elsewhere. About the centre of the retina, in the direct axis of vision, is situated the macula lutea; it is about two lines distant from the optic papilla, placed a little lower than it, and is the most difficult part of the internal eye to examine, on account of the light being reflected directly into the eye, which causes the pupil to contract more than when it is reflected obliquely, as when the optic papilla is examined. It is of a slightly yellowish tinge, and is surrounded by the vessels of the retina, which gradually dwindle into fine hair-like vessels as they approach it. The so-called foramen ovale is situated in its centre, and in the dead body a small hole is generally observed in this situation, the result of maceration. When an eye is dissected, a transverse fold, mentioned by almost all anatomists, is found on a level with the macula lutea. This has never been discovered by the ophthalmoscope, which leads one to believe with Rosas and Dalrymple, that it is merely a post-mortem appearance, owing to the breaking down of the globe of the eye.*

The vessels of the chorioides are also invisible in the healthy state, on account of their being covered with a layer of pigment; but in the pathological state, when this pigment has been destroyed, or when chorioiditis is present, they appear like a number of broad yellowish-white bands, which generally run in a semicircular course. The pigment of the stroma of the chorioides can then also be seen, of a greyish-black or brownish colour, according to the intensity of disease. Of the internal layer of vessels, called the choriocapillaris, or by Ruysch, jun., *membrana Ruyschiana*, nothing whatever can be distinguished. According to Edward Jäger, branches of the deeper layer of vessels can be seen coming up and anastomosing with each other in this situation. The pigment of the stroma of the chorioides presents different appearances in almost every subject. Sometimes it is collected in the interspace between the vessels of the outward layer, and sometimes it appears wanting altogether. It is occasionally heaped up in such a manner that it not only completely fills up the interspace between the external layer of vessels, but also covers their surface, and makes

them more or less difficult to distinguish. The internal pigment layer, on the contrary, presents very little difference in grown-up people. In children, however, it generally presents a remarkably clear and transparent appearance, so that the vessels of the chorioides sometimes shine through.

With regard to the mode of examination, the upright image should be selected when merely a portion of the ground of the eye is to be examined; on the other hand, when a comprehensive glance of the whole of the internal eye is desired, the inverted image is preferable.

Each mode of examination has its difficulties, and requires considerable application before one can become perfect in the use of the instrument; time and perseverance, however, generally accomplish all that is to be desired in this particular.

Reviews.

Anatomy, Descriptive and Surgical. By HENRY GRAY, F.R.S., Lecturer on Anatomy at St. George's Hospital. Parker & Son, 1858.

Certainly students of the present day are left without an excuse if they do not become good anatomists. Not only are anatomical subjects (at least in this country) abundantly supplied in the schools, but works on anatomy are illustrated not only copiously but correctly. Such books are calculated to be of the greatest service if properly used. If used to supersede dissections they will be most pernicious; but after a hard day's work in the wards of an hospital and in the dissecting room, the student will impress the better on his memory the practical lessons of the day by employing his evening in reading some of our approved modern systems of surgery, and some such illustrated work as Holden or Gray. And we would offer this advice to our student friends: better to keep a distinct book for dissecting room use alone; and at home, with clean hands and a clean unsoiled book, renew the recollections of the relative anatomy of the forenoon, before the impressions so easily effaced are altogether obliterated.

Really we must give Gray's *Anatomy* unqualified praise. It is a treatise on descriptive and surgical anatomy only, and therefore does not touch on physiology or on comparative anatomy; but this does not detract from its positive merits. It is illustrated more profusely than any work we are acquainted with, and the wood-cuts are accurately and well executed.

No doubt some subjects are better and more fully described, but every work on anatomy, we believe, must be in this respect more or less defective. Every anatomist has some favourite system, as authors in general have their favourite subjects. In Cloquet's anatomy, for example, the brain and nerves are better described than the

* Vide Desmarres, *Traité théorique et pratique des maladies des yeux*.

arteries, the bones and joints than the muscles. In Gray's anatomy we can trace the same inequality; and were we disposed to criticise we would say, that the joints were less ably and less fully described than the other systems. This, however, does not prevent us from strongly recommending the work as a comprehensive and correct work on human anatomy.

The Pathology and Treatment of Stricture of the Urethra and Uringry Fistula. By HENRY THOMPSON, F.R.C.S., M.B., &c. Second Edition. London: Churchill.

The first edition of this work has been well received by the profession, and it has been very favourably reviewed. We anticipate an equally favourable reception for the present edition. Increased observations and experience, as well as more recent investigations, required proportional changes in the text, and hence considerable alterations have been made by the author in special chapters. Indeed, it may be said, that some have been nearly re-written. We were disposed to make selections from those, but we are pressed for time at present. Throughout the whole work, however, there is an accumulation of material, which reflects much credit on the industrial researches of its author. We do not by any means subscribe to many of his opinions; they are at present *sub judice*, and may on a future occasion form the subject of special notice. We may, in conclusion, remark, that we highly approve of his directing particular attention to the clinical study of the pathology of the urine in connexion with the symptoms, the complications, and the treatment of stricture of the urethra; the importance of such study cannot be exaggerated.

Selections from Recent Contributions

to

MATERIA MEDICA, PHARMACY, AND CHEMISTRY.

(Continued from page 139.)

ON THE SOPHISTICATED OF VALERIANATE OF IRON.

The valerianates are frequently adulterated, and in general these adulterations consist in the addition to a salt of a certain quantity of essential oil of valerian. In 1850, (vol. xxxviii., p. 46), we pointed out the characters which distinguish the true from the false valerianates. We shall not return to this point, as our readers have it in their power to refer to the article to which we have alluded; our duty at present is, to direct attention to the existence in commerce of an adulteration of this kind connected with the valerianate of iron, which has lately been detected by M. Antonin Monnerat, junior, Pharmacien at Estavayer-le-Lac, in the Canton of Fribourg.

Instead of entering into the detail of all the steps he has taken to ascertain the existence of this culpable fraud, M. Monnerat has confined himself to indicating the simplest and easiest means of detecting it, and pro-

poses a method which may be employed by any one. His suspicions as to the purity of the preparation which had been supplied to him having been excited by the extraordinarily dark colour of the drug, he submitted the latter to analysis, and found that it was insoluble in alcohol and in ether, and that, when treated with boiling water, it yielded, on cooling, in addition to a deposit of subcarbonate of peroxide of iron, a considerable quantity of essential oil of valerian, swimming on the surface of the fluid. Now, true valerianate of iron is insoluble in water, but is, on the contrary, completely soluble in alcohol. We may add, that besides these characters, which are so easily recognisable, there is another as readily established, derived from an organoleptic property peculiar to all these salts—namely, their acid, disagreeable, and persistent odour, very different from the penetrating smell of valerian, yielded by the false valerianates formed by the addition of the essential oil.

In order that the physician may be able to form an exact idea of the value of a medicinal substance, and of the resources it affords him in the treatment of disease, and that he may be able to employ it with confidence, it is necessary that it should be of good quality, always pure, and identical in its constitution; M. Monnerat has therefore rendered a practical service to the Profession, in pointing out anew the adulteration of a medicine which is often employed for the relief of the nervous symptoms accompanying chlorosis.—*Bulletin Général de Thérapeutique*, 30th May, 1858, p. 460.

FORMULA OF JASER'S ITCH OINTMENT.

Of all the ointments proposed for the treatment of scabies, one of the most efficacious, and at the same time least expensive for charitable institutions, is that of Jaser. Dr. Delaharpe, Physician to the Hospital at Lausanne, has used it for many years, with invariable success. The following is the formula:—

Flowers of sulphur, half an ounce; sulphate of zinc, one and a half drachms; powdered root of white hellebore, one drachm; soft soap, thirteen drachms; hog's lard, two ounces. M. Delaharpe has been for some years in the habit of adding half a drachm of essence of carraway. The latter addition has perceptibly increased the activity of the ointment, without rendering it more irritating. A pound of the preparation costs about two shillings. Each patient requires for cure, on an average, about eight ounces.

Would it be possible, asks Dr. Delaharpe, to diminish the number of substances entering into the composition of the ointment, without impairing its antipruritic properties? I fear not. The fat and the potash soap modify one another, and by increasing the proportion of soap, we should run the risk of having too irritating an ointment. I propose, however, to make some experiments on this point. The sulphate of zinc does not here act a corrosive part, as might be supposed, for it is completely decomposed by the potash of the soap; it thus serves to form a little sulphate of potash, and by degrees some sulphuret of zinc, by contact with the sulphur. This sulphuret of zinc may have an antipruritic action, at the same time that it contributes to diminish the itching and irritation of the skin, as zinc ointments in general do. A little hydro-sulphuric acid, which is disengaged from the sulphuret of zinc, may also favour the action of the ointment.

The powdered hellebore and essence of carraway are the most active antipruritic elements of the compound; their quantities could not be diminished without disadvantage—I should rather endeavour to augment them; but perhaps we should have to dread a general action, in consequence of the absorption of veratria.

Further, we must not forget that the most essential condition in the treatment consists in the administration of a soap-bath on the admission of the patient. If soft soap of good quality be employed, and if the pa-

tient takes care to brush or rub his skin strongly in the bath, the cure is effected in twenty-four hours. The want of these precautions, I have more than once observed, is sufficient to delay the cure by a day at least. This explains a fact which has often surprised me—the greater obstinacy of the itch in females, notwithstanding the usually greater delicacy of their skin. Through modesty or want of management they do not rub themselves sufficiently in the bath, and the action of the ointment is retarded.—*Ibid.* 15th June, 1858, p. 500.

PRACTICAL OBSERVATIONS ON THE PRESERVATION AND DISTILLATION OF ROSES AND ORANGE FLOWERS.

By M. STANISLAS MARTIN.

The ancient Greeks and Romans, surfeited with the excesses of the table, had recourse to perfumes to stimulate their blunted senses. At Rome, the odour of the rose was in such request, that Lucullus expended fabulous sums, in order to be able to have it at all seasons. During the past century, the odour of orange-flowers was so much in vogue, that the cultivation of Louis the Fourteenth's orange trees was a source of considerable expense, for the great king should have one of these favourite shrubs in each of his apartments. In our days too, Fashion, that despotic and capricious queen, who, as Montaigne says, twists and turns the understanding of the French, also demands perfumes. The poor will have them, as well as the rich; and their consumption is such, that the perfumers of large cities, particularly those of Paris, monopolize all the sweet flowers which are brought to market, and leave none to supply the wants of pharmacy; the consequence is, that the commercial value of such flowers almost always attains to a very high price. Roses are sold for from fifty to sixty francs the hundred-weight; the same quantity of orange-flowers brings from 250 to 300 francs; so that pharmacists are obliged to purchase in the south of France distilled waters, which never possess the sweetness of perfume presented by those manufactured in Paris.

I am certain that this inconvenience may be obviated. Five years of trial and experiment have proved to me that provincial pharmacists may preserve odoriferous flowers for several years, or send them from one part of France to another, without their losing their perfume. The preservative agent is sea-salt, that *corpus divinum* of Homer and Plato.

The Hebrews were acquainted with the antiseptic properties of common salt; they employed it in the preservation of their meats. This substance likewise played an important part in the sacrifices of paganism; it was thrown on the flesh of the victims, to retard their putrefaction.

In the middle ages the alchemists said, *cum sole et sale omnia fiunt*. It was surely this thought which suggested to Wilhelmbulkels the idea of making use of chloride of sodium in the curing of fish. The plan succeeded so well with him, that Charles the Fifth, being in the Low Countries, went to Bier-Vliet to see the tomb of the humble fisherman, wishing thereby to honour the memory of one who had rendered so great a service to his country.

The use of kitchen salt has already been applied to the preservation of medicinal plants. Trouvain, in his *Apothicaire Charitable*, Baumé, Morlot, Lemery, Guibourt, and several other pharmacologists, speak of it—only the directions have been forgotten. However, it would be rendering an immense benefit to revive the plan, particularly as the mode of operating is very simple. It is sufficient to arrange the rose-leaves or orange-flowers in vessels of stone-ware or glass, interposing a stratum of salt between each layer of flowers, until the vessel is quite full. Care must be taken to choose the driest flowers, and to avoid bruising them; otherwise they would ferment, and the water obtained

from them would acidify, and would in time acquire a smell of valerianic acid, as M. Omer Dabat has observed.

Waters obtained from salted vegetable matters have an aroma as strong and as sweet as those distilled from plants gathered only a few hours previously; that from the rose appears to acquire even greater strength. I have kept petals of the rose for two years; the distilled water yielded by them resembled the Indian attar, or the Athenian essence of roses spoken of by the Jesuit Rapin.

Salt, which has served for the preservation of undried plants, may be used for fresh distillations; it is sufficient to subject the decoction to strong expression, to evaporate the fluid to a suitable consistence, and to allow it to crystallize by rest.—*Ibid.* 15th June, 1858, p. 502.

ON THE EMPLOYMENT OF ALKALIES AS A MEANS OF OBTAINING EXTRACTIVE PRINCIPLES.

By M. DANNERY, Pharmacien-in-Chief to the Civil Hospitals of Bordeaux.

If pharmacology daily renders important services to therapeutics, it is capable, in its turn, of receiving valuable information from the latter. The sciences are all mutually dependent on one another. The following supplies a fresh example of this fact. The Departments of Landes and La Gironde are, as is well known, the habitat of marsh fevers. Now, while sulphate of quina so constantly fails in the treatment of fevers contracted in these districts, we see success, on the other hand, attend a number of so-called empirical receipts, in which cinchona bark is constantly combined with carbonate of potash. This practical result has induced me to inquire into the action of the carbonate which invariably enters into these numerous febrifuge electuaries, and I have been led by this study to the conviction, that the alkalies (potash and soda) are the most powerful adjuvants in obtaining all the extractive principles contained in vegetables, whether these be found in the root, stem, bark, or fruit. Therefore I do not hesitate to propose the addition of alkalies to water, as the best mode of obtaining good preparations.

Cinchona barks subjected to this process, have afforded me unexpected results; and what is very remarkable, and worthy the attention of practitioners, as they may derive advantage from it, extracts so prepared have but little taste, compared to those made with the aid of acids. I do not doubt that, before long, the alkaline extracts of bark will become the most powerful and most commonly employed febrifuges, especially in countries where fevers are endemic; their slight taste will procure them the preference, especially in the treatment of children.

The addition of an alkali to exhaust vegetable matters presents, in the case of those substances which include astringent principles among their elements, another very important advantage—it prevents, during the evaporation of the fluids, the formation of the body called apothem, and considered by pharmacologists to be the result of the oxidation of the extractive principle. In the preparation of extract of rhatany, which usually exhibits this phenomenon in so marked a degree, the change is completely obviated by the addition of a small proportion of alkali to the water employed in the process; and evaporation in the open air does not yield the slightest amount of this insoluble principle, which, in the preparation of the extract by the ordinary method, so perceptibly diminishes the proportion, and impairs the qualities, of the cold soluble extract.

But the novelty and peculiarities of the process I have just proposed are not confined to these two examples. Nux vomica, which affords a watery extract extensively employed in Germany as an excipient in tonic medication, for it does not contain an appreciable

quantity of strychnia—*nux vomica*, I say, is completely and absolutely exhausted by slightly alkaline water, and yields a very abundant extract, containing all the strychnia present in the vegetable matter.

Moreover, some experiments justify the expectation that this process may furnish a ready, and especially an economical, mode of obtaining, not only strychnia, quina, &c., but also other proximate principles not yet isolated. Thus, I hope to be able to produce the bitter principle of the *æsculus hippocastanum*, of pomegranate root, of lilac leaves, &c.; I therefore hasten to lay before my colleagues this new and promising method.

Pharmaceutic experiments always precede and give rise to therapeutical investigations. I have already prepared alkaline extracts of bark and pomegranate root intended for clinical experimentation, and a fair amount of success even now induces me to think that I have, perhaps, made an useful addition to the numerous preparations of these two medicines.—*Ibid.* 30th July, 1858, p. 72.

PRESERVATIVE LIQUOR FOR MICROSCOPIC PREPARATIONS.

The importance attached to microscopic investigations induces us to record the following formula, published by M. Pacini. "This fluid answers admirably," observes the author, "for preserving blood-corpuscles, nerves, ganglia, the retina, and all the soft tissues, which are hardened by it, preserving their form and appearance."

Take of bichloride of mercury, one part, chloride of iodine, two parts; glycerine, specific gravity 1.210, thirteen parts; distilled water, 113 parts. The mixture is allowed to rest for two months; one part of the fluid is then diluted with three parts of distilled water, and filtered.—*Ibid.* p. 74.

ON GLYCEROLE DE GOUDRON AND HUILE CADEE, AS TOPICAL APPLICATIONS IN ECZEMATOUS AND IMPETIGINOUS ERUPTIONS.

Modern observers have classed resinous and empyreumatic substances, so extensively employed by the ancients, among the most powerful local applications in the treatment of herpetic eruptions. Thus, purified tar, mixed with lard, in the proportion of from fifteen to forty-six grains of the former to an ounce of the latter, is daily used in the wards of the Hôpital St. Louis, as the resolvent, *par excellence*, of scaly eruptions, and as a valuable desiccative in chronic, eczematous, and impetiginous affections. Since the introduction of glycerine into therapeutics, M. Gibert employs this substance as an excipient, in preference to lard. To facilitate its use, the mixture is thickened by the addition of starch, according to M. Garot's process. This preparation possesses the advantage over ordinary ointments made with a fatty excipient, that it is removable by water.

The following is the formula of the *glycérôle de goudron*:—glycerine, one ounce; purified tar, half a drachm; add, with the aid of heat, powdered starch, half an ounce. With this quantity of starch, which has been determined by M. Lecocq, we obtain an ointment of thin consistence, and easily spread. The mixture should be perfectly homogeneous.

This application allays itching, (we have seen it rapidly succeed in cases which had for several years resisted various and numerous remedies); it dries up excoriations, checks exhalation, dissipates slight cutaneous phlegmasiæ; it acts, in a word, as an astringent and resolvent, without producing irritation. Thus, eczema rubrum, impetigo, intertrigo, prurigo of the scrotum and anus, acne rosacea, and sub-inflammatory mentagra, are, under its influence, most advantageously modified.

Another product very well known to the readers of this journal is the *huile de cade* (oil of pitch). M.

Gibert uses it very frequently; but as the empyreumatic properties which this resinous oil possesses in a much higher degree than tar, are such, that it can seldom be applied in a state of purity, he usually mixes it with oil of sweet almonds, or with cod-liver oil. The following preparation is used, under the name of *huile cadée*, in the Hôpital Saint Louis:—Cod-liver oil, two parts; oil of pitch, one part. This application possesses very efficacious resolvent and drying properties. M. Gibert has seen eczemas, which had continued for months in a stationary, red, excoriated, and oozing condition, notwithstanding the external and internal use of preparations of sulphur, heal under the influence of this combination.

It is particularly in cases of obstinate pruriginous, papulous, and eczematous eruptions of the anus and genitals, which are so often such a source of annoyance to both the patient and the practitioner, that M. Gibert has most frequently derived benefit from the local use of oil of pitch. He adds, in such cases, the diligent use of cold hip-baths, and, in order to alter the diathesis on which the eruption depends, the internal employment of Dr. Boudin's arsenical liquor, modified in the following manner:—Distilled water, one pint; arsenious acid, three quarters of a grain; dissolve with the aid of heat. The mixture is divided into six vials, each of which is marked for two days; half a bottle to be taken for a dose each morning, fasting, with the addition, at the moment the medicine is swallowed, of a cup of chicory, sweetened with honey. M. Gibert states that he has seen eruptions of several years' standing, and which had resisted the use of thermal waters, and of many other remedies, yield in a few weeks to this mode of treatment.—*Ibid.* 15th August, 1858, p. 116.

Meetings of Societies.

BELFAST CLINICAL AND PATHOLOGICAL SOCIETY.

This Society held its first meeting on Saturday, October 30th, which was opened with an excellent address by the President, S. BROWN, Esq., B.N.

ASSOCIATION OF THE FELLOWS AND LICENTIATES OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS, IRELAND.

Evening Meeting, November 3rd, 1858.

Dr. AQUILLA SMITH (Vice-President, Coll. Phys.) in the Chair.

Dr. LEES gave the details of a case of retained menses which occurred in a young girl, æt 18 years. (*See* p. 345.)

Dr. MURNEY exhibited the heart of a female aged sixty years, who had been suffering from palpitation of a rare and unusual form for years. During the attack of one of these paroxysms, the pulse could scarcely be reckoned: Dr. Murney has counted from eighteen to twenty beats in five seconds, which numbers multiplied by twelve, make 216 and 240 pulsations in the minute. The entire arterial tree seemed to be thrown into a series of rapid vernacular motions, which the slightest pressure obliterated. On applying the stethoscope over the heart, a short, quick, rapid sound, almost as frequent as the pulse, could be heard, but differing so far, as it was distinct, clear, and unaccompanied by any abnormal murmur whatever. The heart, which weighed nine and a-half ounces, was soft and flabby; the aortic and pulmonary valves were healthy; there was a diseased condition of the right auriculo-ventricular opening, and a communication between the orifices of the coronary arteries and vein. The lungs presented no abnormal appearances.

DUBLIN NATURAL HISTORY SOCIETY.

The first meeting for the session was held on Friday, November 5th. His Grace the ARCHBISHOP OF DUBLIN was elected Patron of the Society, and W. ANDREWS, Esq., M.R.I.A., President for the ensuing year.

Professor W. H. HARVEY having made some observations with reference to the period of his acting as president, and on the merits and claims of his successor, left the chair, which was taken by the newly elected president.

Mr. ANDREWS, the president, briefly said that in returning thanks to the society for the very flattering and high position it had placed him in, that he could not but feel diffident in accepting such a post, and more especially in succeeding to one so distinguished for his high mental qualifications, and for his untiring zeal in following out those branches of science that he (Professor Harvey) had so successfully advanced. He was much gratified in being thus chosen, because an honourable position was thus held forth for the members to look forward to, who had distinguished themselves in the cause of science, or in the desire to promote the interests of the society. Mr. Andrews observed—I have nearly completed eighteen years as one of your secretaries, and I cannot but feel deeply grateful for the unvaried confidence, kindness, and support that have at all times been given to me by the members, and for the kind and zealous co-operation of those gentlemen, who have been associated with me in office. It is needless for me to dwell upon the vicissitudes and difficulties that the society has passed through during the period, but a uniform line of integrity in carrying out and in promoting the objects for which the society was established, has enabled it to continue without cessation or interruption its annual sessions, and now to present among its list of officers the names of many gentlemen maintaining the highest positions in science. So sudden, I may say, has this honor been made known to me, that it does not permit my giving details of the objects which influence our meetings. Indeed it would have been an unnecessary task, for they have been oft repeated. I may merely remark, that although the workings of this society are chiefly confined to the elucidation of such objects of this country as relate to the natural sciences, yet, notwithstanding all that have been hitherto accomplished, and independently of the recorded transactions of the society, we have still much to explore, and still much to correct in the knowledge of our natural history, and which must give ample scope and reward to the zealous studies of the young aspirant in those researches. Works have recently appeared through London publishers on the zoology and botany of the British Islands, and purporting to embrace that of Ireland; but, strange to say, that the references with regard to this country are meagre in the extreme, objects of interest omitted, and erroneous views perpetuated.

ROYAL ZOOLOGICAL SOCIETY.

At the council meeting, November 6th, Dr. CORRIGAN, V.P., was elected President, in the room of the late Sir Philip Crampton; Dr. BENSON was elected Vice-President; and Captain LEACH, R.E., Member of Council.

ROYAL IRISH ACADEMY.

The opening meeting of the session was held on Tuesday, November 9th, the Rev. Dr. TODD, S.F.T.C.D. in the chair.

The Rev. Dr. REEVES communicated interesting particulars respecting some remains of ancient Irish literature recently discovered on the Continent. They consisted chiefly of Latin poems, the composition of Irish ecclesiastics, who as early as the sixth century had emigrated to the Continent, and laboured there as missionaries.

Dr. KIRWAN read an elaborate paper on the subject

of the present nomenclature of the type and nility divisions of the animal kingdom, showing that the divisional terms now in use were confusing and indeterminate in their meaning. He submitted a scheme of an improved divisional nomenclature, comprising such an arrangement of connecting and interdependent terms as would materially assist the naturalist in his researches.

The Ven. Archdeacon ROWAN read a paper on an Ogham inscription which was transcribed from a gravestone or pillar, standing in a district of the county of Kerry, near to a number of ancient graves, marked by a series of regularly placed stones, supposed to be the resting place of a number of the earliest Milesians who fell in conflict.

The Hon. CHARLES MURRAY, her Majesty's minister in Persia, sent home an account of a highly interesting journey through the Elboorz Chain, and of the ascent of the lofty volcanic mountain of Demavend, by Mr. R. F. Thompson and Lord Schomberg Kerr, both attached to the Persian mission. These documents, which have been transmitted by the Earl of Malmesbury to Sir Roderick Murchison, to be presented to the Royal Geographical Society, will be read before that body at its first meeting in November. In the meantime it may be stated that, having succeeded in reaching the summit of Demavend with instruments, the adventurous diplomatists have determined its height to be 21,500 feet, and have thus deprived Mount Ararat of the reputation it so long enjoyed of being the highest point in Central Asia.

We extract from the *Allgemeine Zeitung*, dated November 1st, that trials of cigars prepared with iodine have lately been made in the Universal Hospital at Vienna, as recommended by some of the medical profession at Frankfort-on-the-Maine; the result, however, has been hitherto very doubtful. In the *Filials* hospital, in the Leopoldstadt, more successful results have been obtained from the employment of phosphorus in the same manner, for the cure of tuberculosis, as recommended by Dr. Churchill, of Paris. The affair has quite a peculiar interest for Vienna, as among the causes of death there tuberculosis always considerably predominates.

BELFAST BRANCH OF THE MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.—The usual quarterly meeting of the committee of this branch of the above society was held, on the 1st instant, in the Library-room of the Belfast Medical Society—Dr. Paterson presiding on the occasion. The deaths of the late Surgeon Patrick, of Ballymena, and Dr. Forde, of Downpatrick, having occurred since the last meeting, much and sincere regret was expressed at their removal, both as supporters of, and subscribers to, the society, and as most worthy and highly-respected members of the profession. The attention of the committee having been called to the very gratifying circumstance of the Rev. William Chichester O'Neill, of Shane's Castle, having lately liberally subscribed to the society, through the Londonderry branch, the secretary, Dr. Robert Stewart, was instructed to inform him that inasmuch as he resided in the Belfast district, the committee respectfully suggested and hoped that he would be kindly pleased to transmit his future contributions to the society through Surgeon Browne, R.N., the treasurer of the Belfast branch. Letters were read from Dr. Wharton, the general secretary, Dublin, transmitting copies of the last annual report for distribution amongst subscribers, &c., to the society at this locality, and referring to his Excellency the Lord Lieutenant and the Primate of Ireland having lately forwarded subscriptions in aid of the important objects of the society, which spoke so creditably for their kindly feelings on its behalf, and which was so encouraging to the friends of the society. The meeting, after transacting some routine business, and making arrangements for the annual meeting of subscribers, at the usual period, next year, then adjourned.—*Belfast Morning News*.

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A DISCOURSE ON CLINICAL MEDICINE.

By WILLIAM STOKES, M.D.,

Regius Professor of Physic, Trinity College, Dublin ;
Physician to the Meath Hospital, &c., &c.

GENTLEMEN—I do not wish that you should take what I am now about to offer to you in the light of a discourse introductory in a special manner to your medical studies for the ensuing year. My respected colleague, Dr. Porter, has opened the session here with an introductory lecture as full of curious and important historical matter relating to medical education in this city, as of sound and practical advice to his hearers. This was the introductory lecture of the session; and there was not a word fell from him, that did not as well apply to the medical as to the surgical student. I do not wish it to be thought that in the Meath Hospital we keep up the old error of separating the studies of medicine and surgery; on the contrary, we may pride ourselves on this being one of the first educational institutions in these countries in which arrangements have been made, and adhered to, to make the study of the two branches of our profession simultaneous, and as free from difficulty as may be. We have, as you know, divided the week into days for surgical and days for medical study; and I beg here to offer my acknowledgments to Mr. Porter, and to the rest of my colleagues, for the punctuality and observance of rule to which they have adhered in carrying out this most salutary arrangement.

Our system of education will be as follows:—Mondays, Wednesdays, and Fridays will be the days for surgical instruction; and Tuesdays, Thursdays, and Saturdays for medical study. On the surgical days neither I nor my colleague will visit the medical wards until after the termination of the surgical attendance; and at these visits, *whenever they are necessary*, we do not desire the attendance of any one beyond our two clinical clerks. On Tuesdays and Saturdays the ordinary clinical lecture will be delivered, and on each Thursday I propose to continue the system of examination upon such

cases as have been taken by the clinical practising pupils. It is impossible to over-rate the value of this exercise to the student; indeed I am not sure if it would not be better that this mode of clinical teaching should be made the regular one, and the formal clinical lecture only resorted to on occasions.

Our system of education, then, is a threefold one:—First, the giving charge of patients to the student, he being, as it were, the regular attendant, the case-taker, and the daily observer of the disease.

Second, the giving of oral instruction at the bed-side, and of formal clinical lectures.

Third, the holding of an examination, not only on the written case, but upon the various questions and points of which it may be suggestive. Thus each case is made to bear two kinds of fruit—one, the study of its actual characters and phenomena; and the other, the application of this knowledge to new combinations, either of the same facts, though differently arranged, or presenting additional circumstances, or wanting some of those which actually exist. This is, indeed, to render "observation fruitful by study;" to make the study of one set of facts help us in understanding other groups, even of a different kind—different in order, succession, combination, and even nature.

In order to make all this more plain, let us suppose that a student brings forward a case of aneurism of the abdominal aorta—a model case, if you will, with all its characters existing as we commonly meet them. The signs of visceral displacement have occurred at a period towards the close of the case. The question may be asked—If this displacement, say of the liver, had taken place during the first, instead of the last periods of the disease, how would this modify your diagnosis?

Here we deal with variations in the order of the signs or circumstances.

Again, taking the same case, we find a tranquil and natural pulse, with the heart's action quiet and undisturbed. The student may be asked, how the combination of a full, sudden, and collapsing pulse, a visible arterial throb in vessels remote from the supposed centre of disease, a double mur-

mur with the heart's sounds, and an increased impulse of the organ itself, should influence his judgment in a case of supposed abdominal aneurism.

In this instance we consider the effect of circumstances additional—of a set of signs which, though not common, may exist, and which, as you may hereafter see, have an important bearing on the general diagnosis.

Again, we may, dealing with the same case, suppose that one, at all events, of the characters of the disease was wanting—say the immovability of the tumor. Then the question would arise—To what does the moveability of the pulsating tumor point?

Now, the great merit of this method of teaching is, that the student, in dealing with these combinations, all of which relate to possible cases, has the advantage of having before him an actual example of disease—a basis of operations, as it were—whose characters observation has engraved upon his mind, and which furnishes him with a key to the solution of these questions. He has only to add to, abstract from, or to re-arrange phenomena of which he has gotten a clear notion, to be enabled to enlarge the circle of his knowledge to an indefinite extent.

Clinical experience, when you come to deal with circumstances which may be new to you, will be found to have two useful applications. The first is in diagnosis generally considered. You have had, for example, a case of peritonitis from perforation of the ileum. You have seen and learned the features of this terrible case—the occurrence of local suffering, new, sudden, violent, extraordinary; arising without apparent exciting cause, and rapidly followed by sinking of all the powers of life. You open the dead body, and find ulcerative perforation of the intestine, extravasation of its contents, and a general peritonitis. See now how many examples of disease the study of such a case will enable you to discover and understand. You have learned the formula for the diagnosis of most of the internal solutions of continuity in the great cavities—rupture of the stomach, of the urinary or the gall bladder; laceration of the uterus; the opening of an abscess of the liver into the peritoneum, pleura, lung, or pericardium; the bursting of an aneurism of the aorta into any of the great cavities—into the trachea, vena cava, or spinal canal; the entrance of foreign bodies into the air-passages; the laceration of the valves or their tendinous cords; or the rupture of the muscular structure of the heart. We might go further, and instance many cases of cerebral disease, and the long train of affections to which Virchow has given the name of embolic diseases, which result from solutions of continuity, not of normal structure, but of that deposit in the valves of the heart, common in the disease so well described by Dr. Corrigan, in which vegetations are formed on and about the aortic valves, and which, when detached, are carried on in the stream of the arterial blood,

until, suddenly obstructing some vessel, they act as foreign bodies, and destroy its function.

Other illustrations will, of course, present themselves to you, showing how, by the study of a single case, we obtain principles of diagnosis applicable to others of different kinds. Let us now enlarge our view, and consider *general* disease, as distinguished from *local*. You have a case of typhus fever, running a course of twenty or days, and exhibiting various local symptoms arising at various periods of the disease. You learn from this, that the so-called anatomical theory of fever is without foundation. You have before you an example of a diseased condition of the whole system, not proceeding from local change, but often producing local change. You find this change or these changes the effect, not the cause. You find a singular condition, a group of phenomena,—a special mode of life, if you will—attended with prostration of the conservative vital forces, so that it is a struggle between life and death for a time; and all this under the government of laws of periodicity, more or less decided, and having an influence, not only on the general ailment, but on its local results, whether organic or functional. Now, reflect on what you have gained by the study of this one form or case of disease. You have had your minds opened to the knowledge of *Essentialism*—that great truth, held by the pre-anatomical school, denied by more modern pathology, and now, by its very weight and truth, forcing itself back on our convictions. You have been training yourselves to look at disease in a broad and philosophical point of view. You have learned principles whose application it is difficult to limit, whose value it is impossible to under-estimate. You have been learning how to consider, to meet, and to contend with, that which you have never yet seen—the Plague of the Levant, the Yellow Fever of America, the Cholera of India, and the Malignant Intermittent of Africa; for these are all *essential diseases*, in which the general affection precedes and produces the local. They are affections without anatomical character, prostrating the vital power from the first; epidemic, often contagious, periodic, and to be treated less by any cure that we know of, than by preventing death until they cure themselves.

Reflect also on this, that under the action of epidemic and of endemic influences, the purely local and accidental diseases take on some at least of the characters of the essential conditions; and I believe it will yet be found, that a large number of cases of disease hitherto classed as purely local affections—simple inflammations, if you will—not supposed to have relation to fever, or any other essential condition, will turn out to be, in reality, only examples of diseases *secondary* to a fever, arising, as it were, *unconformably*—that is, at a period much earlier than is the rule, and, by the operation of some law still obscure to us, causing or followed by the disappearance of the general malady.

This I offer with diffidence; but every day increases my belief, that many cases of apparently local and accidental diseases are but examples of *Aborted Fevers*, and that they are endued with more or less of the characters of the parent or antecedent affection, which has disappeared so mysteriously. If this be so, the advantages we obtain by the study of a case of fever have relation, not only to every case of the pestilences which destroy man by wholesale, but to an infinite number and variety of local diseases, whose relation to essentialism has not even been suspected.

Gentlemen—I have now been occupied in the investigation and teaching of clinical medicine in this hospital for many years, and I have had the happiness of hearing, almost without an exception, of the success of those of our pupils who, while they resided with us, were distinguished by their zeal in the study of clinical medicine. Many of these good and faithful servants have been called away, dying in their harness, like true knights of old, while labouring to advance the knowledge of our glorious profession, and to extend its benefits to their fellow-men; many remain, though scattered widely over the world; and it has often been my privilege to receive letters from them, detailing their labours in India and Southern Africa, in Canada, the United States, and New Zealand, and all speaking in terms of affection of the Institution and its officers, where and with whom they had learned those principles of medicine which were every day their guides and support. These letters, you can understand, have given me a kind of pleasure which none but a teacher can feel; and in connection with some eloquent words once uttered in this theatre, have to me an intense degree of interest. These words, which I will read to you, of the greatest physician and the most remarkable man that the Irish profession can boast of, were spoken, in the place where I now sit, in 1838:—

“When I look around me and behold so many young gentlemen entering upon an honorable and important profession, I feel that my responsibility is great. I consider you all as instruments of good or evil, and cannot help being conscious that I should be guilty of a great crime did I not use every means in my power to render you able and efficient practitioners. The teacher of clinical medicine, gentlemen, occupies in every nation a post of heavy responsibility. But when he happens to preside over the medical education of those who resort to the wards of a metropolitan hospital—when the metropolis is a British one, and the hospital destined to send forth annually, practitioners to every quarter of the globe—to North and South America, to New Holland, to the Cape of Good Hope, to the East and West Indies, and the countless isles, which in either hemisphere are visited by the British flag, then indeed does that teacher become himself an

instrument of good or evil, to an extent which it is fearful to contemplate.

“He who gives instruction to a clinical class in Berlin, Stockholm, Vienna, or Paris, has much to answer for, if he discharge not his duties with zeal and diligence. Yet if he fails to make his pupils good practitioners, their errors, however deplorable, are circumscribed within comparatively narrow bounds, and limited in a great degree to their own countrymen. But the British teacher sits in the centre of a circle far wider than Sweden or Prussia, Austria or France; his pupils are to be met with practising in every climate, exercising their art in almost every habitable region of the globe, and dispensing the blessings of health to all races of mankind:—to the hardy white settlers of Canada, the aboriginal red-skins of North America, the Negroes of Jamaica, the Hottentots and Caffres of Africa, and the countless tribes of Hindostan.

“In truth, gentlemen, the British teacher of practical medicine exercises an influence without parallel in importance and extent, and his opportunities in benefitting or injuring his fellow-men are incalculably great. If he neglect his duty, if he teach erroneously, his negligence and his errors in practice are multiplied indefinitely by means of those whom he ought to have better instructed; the scene of his guilt—for it deserves no better name—becomes fearfully enlarged, for there is no country so remote that it may not contribute victims to the incapacity of his pupils. But if on the contrary he works with zeal and diligence, if he labours conscientiously and perseveringly in performing the important task he has undertaken, a compensation awaits him, to which scarcely any member of any profession can attain. Can any reward exceed in value the reflection that he has assisted, materially assisted, in imparting practical knowledge to the multitudes of enterprising young men, who, year after year, leave our hospitals to engage in the sacred duties of the medical profession throughout the world? Is it not a high privilege to be enabled to combat death and conquer disease, as it were by proxy, in so many different localities? Can man enjoy a purer, prouder, more gratifying reflection? When I hear that a favourite pupil, who has acquired a solid stock of practical knowledge in this hospital, has settled in any particular town or district, I cannot help feeling, on the part of my colleagues and myself, that we have been the humble means of conferring a blessing on the people entrusted to his care; and I cannot refrain from congratulating myself upon holding a situation which multiplies a thousand-fold our efforts to be useful, and enables us to stretch forth our hands to heal men of all nations and languages. The hero and the despot may extend a sovereignty over distant regions—may exert an unlimited control over millions of vassals—may dispense honours and rewards, or inflict punishment and death; they may, like

Alexander, grieve at the narrow limits of a conquered world, and sigh for other scenes of glory, but they cannot chase away pain; they cannot bid the burning thirst to cease, or give back repose to the sleepless; they cannot impart feeling or motion to the paralysed, or sight to the blind; and above all, they cannot imitate that almost god-like function of the healing art, by which man is enabled to recall to his fellow-man reason long banished, and restore to society the hapless victim of insanity."

Let me here speak of some of our pupils who have held the office of clinical clerk in our wards. At Ceylon, filling an important professorship, we have Dr. Cameron; in Toronto, Dr. Bovell; in Montreal, Dr. McDonnell; in New York, Dr. O'Reilly; in St. Louis another of the same name; while in Southern Africa, two Meath Hospital men are engaged in carrying out the judicious views of the governor, Sir George Grey, who is securing the confidence and gratitude of the Caffirs, by providing for them a great hospital, under the direction of two enlightened surgeons, Dr. Fitzgerald and Mr. Egan. Looking at home and in England, we may point with pride to many names. One more instance, and I have done with this subject. Dr. Thomas Moore, who will be long remembered here, was a regimental surgeon in the East India Company's Service; he was one of the last of the British officers who fell a victim to assassination by the insurgent Sepoys. A few days before his death he wrote to me a letter, expressive of his desire to offer a gold and silver medal to be competed for by the general class of Dublin, at an examination to be held in Trinity College. The next mail brought the tidings of his untimely death.

It may be laid down, that the objects of clinical study are two-fold. We seek to learn as much of medicine as we can, and in the next place to train our minds to the proper use of that knowledge, so as to form for each of us, so far as our individual capacities will go, that condition which has been well termed the *mens medica*—a condition so much more rapidly acquired by one man than another, that it would almost seem that in some it was actually innate; in others it appears hardly attainable. Of men in the latter class it may be said, they can hardly be useful or safe in the practice of medicine or surgery. Learned they may be, experienced if you will, in so far as that they have seen a large number of cases of disease; but this very knowledge is seldom at their command when a necessity arises for its employment.

Bear in mind that the life of any of us would be insufficient to gain from personal observation a knowledge of every form of disease. Diseases are not material objects; we cannot make a museum of them, as we would of minerals or plants. We can make a collection of some of their results; but our greatest efforts can only produce an array of drawings, preparations, and casts,

not of disease, but of some of its effects on the living structure. Valuable as these may be, necessary as they doubtless are, they not only fail as complete pictures of disease, but they are insufficient to enable us, at least in the present state of our knowledge, to get one comprehensive idea of the disease, and its varied vital phenomena.

The next result of this training is the power which it confers of a rapid and easy use of the knowledge acquired—or, if you will, of the instruments you possess. I need not tell you that this faculty, when exercised by a man of known judgment, is highly calculated to inspire confidence in the patient, and to increase the respect of his brethren; and above all, it tends to remove from the practice of your profession, one at least of the many circumstances, which render it an onerous and a painful one. To be in doubt—to feel, when action is necessary, your mind swaying, now this, and now that way—is, to a good man, one of the most painful of positions. I have dwelt on this matter before. There is but one way of attaining this thing, and that is by intimacy with disease at the bed-side—with disease not described, not pictured, not dead, but living, working, changing, slaying before you. All the lectures that ever were delivered—all the books that ever were written—all the museums of pathology that ever were made, will fail in communicating this power to you.

In illustration of what has been now said, let me give a sketch of a case in which the quality of rapid and judicious action under new circumstances was admirably exhibited by the late Sir Philip Crampton. I remember many other instances in which I had an opportunity of seeing him exercise an almost intuitive power, but one will suffice.

A little girl had placed a peeled kidney-bean in her mouth, and was shortly afterwards seized with the symptoms of a foreign body in the air-passages. I saw her a few hours afterwards, in company with some of the most skilful surgeons in this country. The child was then in imminent danger; one side of the chest was as fixed as this table—no air was entering it—while the other was acting with great violence; every muscle of respiration being called into convulsive action. Râle had commenced. The operation of tracheotomy was speedily performed, but without the usual success in such cases, and by no effort could the foreign body be seized or dislodged. The attempt to relieve the child was resigned, and we left her to her mother's care. In a few minutes subsequently I met Sir Philip Crampton, and told him what had happened. He asked, "Is the child dead?" I said, "No, but it will soon be so." "Let me see it," he said. On entering the room he drew a chair, and sitting down before the sufferer, then almost in her last agony—her face and hair wet with her mother's tears—gazed on her for a few moments in silence; then he put his hand backwards, and in a low voice said, "Give me a probe." It was handed

to him, when he proceeded, with deliberation, to give to the instrument a certain curve. Passing the head of the probe downwards through the wound, he directed it to the left side, and said, almost in a whisper, "I feel it now;" and then, "the side of the tube is quite elastic." A moment afterwards and the left side suddenly sprung up; and in the next expiration the foreign body was shot out through the wound, with such force as to ring against the window-pane opposite. At the moment the bean was expelled, he started to his feet, holding the probe aloft—his face and dress sprinkled with the blood that had sprung from the wound. He danced for joy; then, stooping down, kissed the forehead of the child, and rushed from the room.

Here the first operation failed, because the bean was drawn in more and more inextricably by the convulsive inspirations. There was no power by which it could be expelled, until, by the passing of the head of the probe between it and the wall of the bronchus, air was admitted, so as to permit the expulsive action. I shall never forget this scene, nor the almost boyish delight at the result exhibited by the operator himself.

Let me then exhort you, while the Sibylline leaves lie open, to read, mark, learn, and inwardly digest every word of every lesson that nature may offer to teach you; and be sure, that if you thus, in right earnest, make the most of your opportunities, you will lay the foundation of knowledge, power, fame, and sometimes fortune. Make but as good use as you can of the opportunities, that a little time may remove from you, bearing this always in mind, that even by a few cases, faithfully studied, you can, in many instances, so educate your minds, as to be able to think justly, and act with wisdom and decision, when you have to encounter disease under new aspects and forms; new, either by their nature, or by the order or complexity of their characters.

Gentlemen, you are commencing your studies at an important period in the history of our profession in these countries; for no one who discerns the signs of the times can doubt, that the value of the healing art is becoming more recognized in public opinion. The value attached to sanitary measures and their progressive organisation—the interest attached to social science, in which medical questions have so much weight—the extension of physiological study, and its cultivation as a branch of general knowledge—the improved arrangements of the old universities, with reference to medical study—improvements in which the University of Dublin may well claim to have been leader—the recently increased rank and emoluments of the military medical officer—a change the value of which, to the whole profession, civil as well as military, it is difficult to estimate—and lastly, the passing of the late Act of Parliament, by which, for the first time, the profession, as a whole, will be brought into contact

with the administration of the country—all point out that a new state of things is being inaugurated.

Now let me again refer to the address of Mr. Porter, of which not the least valuable part was that in which he pointed out so forcibly, that if the country improves the status of the profession, it will expect and demand, that its members will show themselves more and more worthy of that improvement.

What is wanting to the class of medical students is, that they should be educated to a degree at least equal to that of the professions of law or divinity. Let us have less special, and more general, education; this is the one thing needful. I have always urged on my hearers in this place, that they should have the advantage of an University education. Every man who has been long occupied in teaching must admit, if he be honest, that the student most distinguished, most successful, most full of promise of future eminence, most likely to do honor to his profession, is the man who has cultivated his mind, either by fulfilling the curriculum of an education in arts, or by study, as nearly equivalent to that as may be. Time will not permit me to show you all the cogent reasons why this advice is sound; I have urged it on you year after year; and I can only hope that, in after times, you will not have to repent the neglecting of this earnest, and I may say, in my case, disinterested advice.

Our profession, though having in it the elements of power, as compared with its sister professions, is as yet undeveloped. Were I to indulge in vaticination, I would paint its future in colours that might be deemed too glowing. When mankind learns that life and health are preferable to gold, the place of medicine will not be as it now is. By its very power—by the progress of human knowledge, and the development of the mind of man and his mission—it will rise, even though by our defaults we clog the wheels of its progress. It is for you to elect whether you will assist or retard this consummation.

Now, reflect on this, that the history of most distinguished men is a history, not of ambition—of pre-arranged plans for ultimate success, in which the means are held subservient to the end—but of labour—labour, not undertaken or directed by any selfish feeling, any hope of self-aggrandizement—but springing from the necessity that was in such men to follow out the truth. If time and health were vouchsafed to them, they became relatively greater than their fellows; and so, step by step, they passed into positions which, in the days of their early work, they never dreamed of possessing.

Before I part with you to-day, I have to speak on a subject which has already been brought before you. Since we last met in this theatre, we have lost two members of our medical staff—the senior and junior surgeon—one having had the longest, and the other the shortest tenure of the

appointment that is exhibited in the records of our body; one passing away after a long and splendid life of deserved and almost unexampled success, with "honour, love, obedience, troops of friends;" and the other fighting his way onwards through obscurity, difficulty, painful labour by day and night, with a feeble body, but with a great heart in him, that made him persevere through good and through evil report, and for many years made him labour while others slept, with little, if any, prospect of attaining honour or profit. His election into the staff of the Meath Hospital, if it had no other value, had this, and it was a great one—that it gave to him, though but for a short time, the feeling that his merits were recognized by his brethren, and that he had at last a field for a nobler and more congenial labour.

Mr. Ledwich was the grandson of Dr. Ledwich, the author of the celebrated work on the Antiquities of Ireland. He became a member of the Royal College of Surgeons, in 1844, and in the same year he commenced as demonstrator of anatomy in the school of Peter-street. Soon afterwards he became one of its proprietors, and lectured on comparative anatomy, physiology, and surgery, with great success. I have heard, and can easily believe, that his style was earnest and impressive—occasionally rising to an impassioned eloquence, so as to entrance his auditors. Yet he was not an oral teacher merely, but contributed—independently of many most able reviews and critical notices—the following original memoirs to our medical literature—besides the composition of his excellent book, the "Complete System of Human Anatomy." His original essays embraced subjects relating to surgery, pathology, and medical diagnosis, and are all calculated to support the reputation of the Irish School of Medicine. I may here mention his memoirs on Permanent Patency of the Foramen Botalli, a valuable addition to the pathology of the heart; his essays on the connection of gout and gangrene; on the treatment of anthrax, on the sub-acute inflammation of the prostate; and lastly, on the treatment of abscess by the method of Chassaignac.

I believe that the election of Mr. Ledwich into the staff of this hospital, with which he had no previous connection, was a great fact, and one full of promise for the Medical Schools of Dublin. Let us hope that the example set here by the medical board, will be followed up elsewhere, and that the electors, whosoever they may be, to any place of medical trust or honour among us, will consider themselves as trustees for the public weal, and for the advancement of medical science as well as guardians of merely local interest; and feeling this, will throw open every medical and surgical appointment, and elect into it that candidate, no matter from what part of the world he may come, who has honestly and manifestly earned the reward. Were this to be so, see what impetus would be given to medical study here. We should not, as

now, lose every year so many of our best men, who, despairing of success at home, seek for it in various climes and regions. Above all, we should vindicate the claims of our profession to be the best guardians of its interests—the true upholders of its scientific attributes, and the fearless preservers of its honour.

Richmond Hospital.

SYPHILITIC ULCERS OF THE FINGERS AND TOES.

CLINICAL LECTURE

By MR. HAMILTON.

James Nolan, aged 36, has a large superficial ulcer at the end of the right forefinger; it presents the characters of a syphilitic sore or large chancre, in the second or granular stage. The surface is smeared with a tenacious yellow matter; the edge like a deep red line; and the rest of the finger, as far as the first joint, is of a dull red colour, and swollen. The ulcer is about the size of a shilling, situated on the dorsum of the last phalanx, beginning from the nail. There is an enlarged gland on the inside of the arm, just above the elbow, hard, but pale, moveable, and not tender. A mottled syphilitic eruption is apparent on the abdomen and loins, and there is some redness and swelling of the fauces, but no other symptom. He said that five weeks previously, after impure connection, his forefinger, which was sore at the root of the nail (he believes from his business as a soap-boiler), became sorer; but a little after he confessed to having had connection with a woman of the town three weeks before that; it is therefore possible that the infection of the finger dated from a period of eight weeks. It now appears to me that the ulcer on the forefinger has more the characters of a secondary syphilitic ulcer, a change effected in it at the period of the supervention of the secondary symptoms. This is not unfrequent in chancres on the inside of the labia or on the penis, which at that period become larger, more granular, and raised, or else assume a white, soldered appearance, like condylomata. I believe them to be still infectious. He was put on five grains of blue pill thrice daily, with black wash to the finger. The mouth became fully affected; the sore contracted, and became white at the edge, and was two-thirds healed, when he left the hospital, at his own wish. Directed to continue the pills once daily.

This case of chancre on the finger may appear one of trifling importance, but, as I shall show you, it is not so; on the contrary, a syphilitic ulcer in this situation requires prompt recognition, in order to avoid a chain of the most distressing consequences.

You will meet with syphilitic ulcers, both on the fingers and toes: in the fingers in two forms—primary and secondary; in the toes only as secondary ulcers. The most common forms in the toes is a species of onychia, the ulceration beginning at the side of the nail, and gradually extending to the whole of the matrix, till it forms one large ulcer. It may appear in a mild shape, as that of onychia simplex; but more commonly in the severer form of onychia maligna. During the progress of the disease the nail becomes changed, getting soft and thin, not unlike parchment, and finally discoloured to a blackish-green, and shrivelled; part of it comes away, the part to separate being that at the root of the nail, where a small jagged portion of altered nail still remains, keeping up irritation. In bad cases, the ulcer is of a dull greenish sloughy-looking surface, pouring forth a peculiarly foetid oily discharge; the rest of the toe swollen, dull red, and inflamed-looking. It is, in fact, what Dupuytren calls onychia maligna, with the addition of the specific poison of syphilis. The disease is a very distressing one; the pain and tenderness are such that the patient can neither wear a shoe or walk, and the foster of the discharge is very unpleasant.

CASE 2.

Michael Loney, aged 38, admitted into No. 9 ward, with syphilis. He is pale and emaciated. Sparingly over his arms, but more thickly on his head, appear tubercles and scabs, most of small size, from a spangle to a sixpence. His right great toe is ulcerated on its upper surface; the nail is gone, and the whole matrix converted into a deep foul ulcer, as large as a half-crown; its surface uneven, irregular, and covered with a dirty yellowish or greenish pus and sloughs. Its edge is sharp, prominent, and well-defined, the surrounding skin of a deep purple colour, and the whole toe considerably swollen; he has most severe pain in it, of a stinging character, worse at night, preventing sleep, and actually, he says, making him delirious. He has very bad sore throat; a deep yellow ulceration, extending along the arches of the palate, to the uvula; with fiery-red fauces and palate, and some ulceration at the back of the pharynx. The parts are swollen, and deglutition very painful. The uvula is twice its natural size.

He has been a dissipated man for many years. Ten months previously he contracted chancre, followed by bubo; about two months after an eruption came out, of red raised spots, which scabbed, but did not suppurate. He was admitted into Stevens' Hospital, under Dr. Croker, and was put under frictions of mercurial ointment, and pills, till salivation. After remaining in hospital some time, he left, quite well; but about a month after the eruption re-appeared, and has never left him since. The toe became sore seven weeks before admission, beginning at the root, and gradually destroy-

ing the nail. He was ordered ten grains of blue pill at bed-time, and five grains of the hydriodate of potash in decoction of sarsaparilla morning and mid-day; a bread-and-water poultice to the toe. A week after it was clear, that the ulcer on the toe had not improved—indeed, there were indications of its spreading on the inner side. It had been so painful at night that he required an anodyne. Mr. Hamilton directed the ulcer to be fumigated with a drachm of hydrarg: c. cretâ. This had a most remarkable effect: the pain was so much lessened, that he slept without the opiate; and next day the ulcer looked better and cleaner, and the edges had lost their angry phagedenic appearance.

From this time, under the pil: hydrarg: and the hydriodate of potash, he steadily improved, not only in the toe, but the more serious affection of the throat and the eruption; and at the end of a little more than a month he was discharged, the ulcer of the toe small, without pain, and cicatrizing rapidly; the scabs all off the eruption, and the throat perfectly well. He was desired to continue the treatment for three weeks longer.

2nd. The second form is that of white soddened ulcers on the web between the toes. They are not painful, but very disagreeable, from a thin sweaty discharge, which has an abominable smell. It is an earlier symptom than the onychia, and usually accompanies that form of secondary disease when there are condylomata at the sides of the anus, white soddened ulceration of the tonsils and arches of the palate, or at the corners of the mouth, or like white fissures along the edges of the tongue, with some mild form of eruption, as the rubeola syphilitica.

CASE 3.

A man was admitted into No. 5 ward, with secondary syphilis; he was so stupid that no proper history of his complaint could be obtained from him. He had phymosis, caused by a number of white soddened-looking ulcers round the orifice of the prepuce. The scrotum was covered with small, red, slightly-raised ulcers, becoming more like condylomata as the scrotum gets near the perineum. At some distance from the anus, at each side, were several condylomata, a faint mottled rash of rubeola syphilitica. Both tonsils are slightly swollen and white; also, between the toes, a white, soddened state of the cuticle; with some places where it has separated, and left a bare, red, raw-looking skin, exuding a thin discharge. He took one grain of the ioduret of mercury, with one-fifth of a grain of opium, till slight salivation, and, three weeks after admission, left the hospital well, the ulcers healed, and the condylomata gone. Though the ulceration at the prepuce was quite healed, the natural elasticity of the part had not sufficiently returned to enable him to draw back the foreskin.

We now come to the fingers. Here you meet with both primary and secondary ulcers. The primary are usually the result of the syphilitic virus coming in contact with an abraded surface. They have always presented themselves to me on the forefinger. This may be explained by this finger being the chief feeler of the whole body.

Some years ago, in the very same bed that Nolan is in, there was a man with a primary ulcer or chancre on the right forefinger. His account at first was, that he had got his finger into a man's mouth, who bit it; but on further examination, he confessed to having recently had intercourse with a woman of the town. He was cured by mercury and black wash.

In this case the infecting matter had lodged in the small deep ulcer of the bite, and converted it into a chancre.

CASE 4.

Stephen Brannick, aged 35, admitted under Mr. Hamilton, January 8, 1850. He has an ulcer on the matrix of the forefinger of the left hand; the nail has been detached, and the ulcer is about the size of a shilling, the edges raised and well marked, the surface smeared with a yellow exudation, through which small granulations appear. The whole ulcer is about the level of the surrounding parts. The end of the finger is red, swollen, and tense. On the prepuce are the remains of three chancres, which are nearly healed. Nine weeks before he contracted a chancre, to which he applied lint wet with black wash. A little more than three weeks since—that is, about six weeks after infection—he punctured the quick, and in a few days felt it painful, and perceived a vesicle raised round the nail, which contained nothing but serum. He applied turpentine. The ulceration, which appeared where the vesicle had been, enlarged with much pain, particularly at night; the nail loosened, and came away.

He was put on four grains of hyd: c. cretâ, with one of aromatic confection, three times daily; black wash to the ulcer. On the sixth day his mouth was touched; the fourteenth day the ulcer had lost the chancrous character, and was rapidly healing. He was discharged, being directed to continue the pills, as he has done since the last report, twice daily.

January 30th.—The twenty-second day he came to the hospital with the ulcer just healed.

There can be no doubt, in this case, that the ulcer on the finger was a primary chancre from the puncture near the quick of the nail having been inoculated from the matter of the sores on the penis.

I have already said that I have always met with them on the forefinger, but it is quite clear they will occur on any finger where there is a puncture, cut, scratch, or abrasion, in contact with which pus from a chancre may come. In M. Ricord's admirable plates, the twelfth exhibits a large in-

durated chancre on the thumb, where the man had punctured himself, and become inoculated, either from his own chancres or the source from which they came.

The secondary ulcers affect the matrix of the nail just as they do the toes, beginning with ulceration at the sides or the root of the matrix, causing a loosening and degeneration of the structure of the nail, and finally its complete separation, leaving an ulcer, with more or less foul surface, and a raised, well-marked edge; the end of the fingers clubbed, swollen, and of a dull red colour.

You see in these two plates, after cases of my colleague, Mr. Adams, excellent delineations of the secondary syphilitic ulcers of the fingers: the swollen, red, clubbed finger-end; the deep, unhealthy ulceration of the matrix; and the nail destroyed, all but a small semilunar portion, still adherent at the root of the matrix. One is situated in the middle finger of the right hand, the other on the little finger of the left, with a few scattered spots of ecthyma syphiliticum on the forearm. Both these ulcers appeared as secondary disease, with other forms of secondary symptoms; but in other cases, as I have already said, a primary ulcer or chancre on the finger, got by inoculation or abrasion at the finger-end with syphilitic matter, will become changed on the coming-out of secondary symptoms, and assume more the characteristics of a secondary syphilitic ulcer, but not, I believe, less likely to give infection; and this is a matter of the utmost moment. Another fact of great importance is, that if a person labouring under secondary symptoms gets a cut, scratch, or abrasion, this simple wound is apt to degenerate into a syphilitic ulcer, and become very infectious. There is a very remarkable case of this in the work of the late Mr. Colles. An accoucheur, in large business in this city, contracted syphilitic ulceration in his right forefinger; it got well under a course of mercury. After a long interval he became affected with what he conceived to be rheumatism; this was relieved on the appearance of a rash over his whole body. Both rash and eruption were syphilitic, but of this he was totally ignorant. In this state a window-sash fell on his forefinger. The bruised abrasion became very sore, and converted into an ulcer; and before he was aware of its real nature, he unfortunately infected several ladies that he attended in their confinements. The mischief and misery from this unhappy occurrence are well portrayed by Mr. Healy, from whom Mr. Colles quotes the case. The accoucheur was totally ruined by it.

The treatment of these cases offers nothing peculiar, except, perhaps, that where the sore is very unhealthy and very painful, much benefit arises from fumigating it with mercury and chalk. In Loney's case, all pain ceased after one fumigation, and the first sleep for many nights followed its use. In ordinary cases, the application of lint wet

with black wash to the sore, and bringing the patient under the influence of mercury, will cure the disease.

The real object of this lecture is, to try to enable you to make an accurate diagnosis, the importance of which, when the finger is the seat of the syphilitic ulceration, cannot be magnified.

CASE OF FISTULA CONNECTED WITH DISEASED PROSTATE, WITH REMARKS.

By CHARLES DUIGAN, L.R.C.S.I., Mullingar.

J. D., aged 21 years, a strong and healthy looking man, sought my advice, for a fistula, situated posterior to a line drawn from the right tuber ischii to the anus, and within three quarters of an inch of the latter. The orifice of the fistula was indurated, inflamed, and into and out of it crept a number of ascarides. A director passed freely to the verge of the anus, and a slight degree of pressure caused it to pass for an inch alongside the bowel. The speculum displayed a healthy state of the mucous membrane.

He stated that the disease commenced about four months before, previous to which time he had enjoyed good health. At first he suffered from general feverishness and local pain, until an abscess, in the neighbourhood of the rectum, gave way, and terminated in the establishment of a fistula, which for three months, although it discharged freely, gave him little annoyance; but within the last fortnight it became so painful and tender as to prevent him from following his usual pursuits—those of an agricultural labourer. He also stated that defecation was painful, and he conceived that during that process air escaped from the fistulous opening.

Having treated him for a few days to remove the ascarides, I introduced a German speculum into the bowel, and divided the fistula from the external opening to the verge of the anus. I then waited till the slight hæmorrhage, which obscured the parts, had ceased, when I found that the knife had left the tract of the fistula within a few lines of the orifice of the anus; that the tissues around the gut were apparently healthy, and that a curved probe passed into the fistula, and took a direction upwards and forwards into the perineum towards the neck of the bladder. Conceiving that further operative interference would be, then, worse than useless, I desisted, and put the patient to bed. The tract of the incision healed, the fistulous opening closed, and he expressed himself as feeling quite well. I felt that this improvement could be only temporary, and directed him to return in a month. At the expiration of that period he returned; the fistula had formed a new opening nearer to the anus; and anterior to it a curved

probe passed in the same direction. A Dublin surgeon, who now saw him, gave it as his opinion, that the fistula was connected with a diseased condition of the prostate, and that an operation did not then afford any prospect of relief.

I directed the patient to see me again when any change took place in his then condition. In three months he again applied to me, stating that within the last ten days a new symptom had been added to his sufferings; he felt a difficulty in passing water (for the first time), which he attributed to a hard lump which had formed in his perineum. On examination I found the fistula in the same state as when I last saw it; but deep-seated in the perineum, apparently in front of the triangular ligament, I found a small tumor, about the size of a filbert, irregular in outline, and of stony hardness; the integuments moved freely over it, and it seemed closely adherent to the floor of the urethra. An incision into the perineum laid bare a cyst, containing some hard material; I endeavoured to dissect it out, but failed, owing to its adhering to the floor of the urethra, and the consequent danger of wounding that canal. I therefore removed as much of the cyst as I could, and about forty grains of calcareous matter, of the consistence of mortar. After a few days I again removed about the same quantity of this substance; and having waited a short period to ascertain if any more would come, I injected the fistula with strong solution of nitrate of silver; it passed through the whole tract of the fistula, and came out through the incision in the perineum; I then applied a compress and bandage. In a fortnight he returned home quite well. I saw him in a year and a-half from the date of the last operation; he was then free from all symptoms of his old complaint.

October, 1858.—I believed this patient to have been quite cured when I had closed the notes of his case, in 1857, but on the 20th of August, 1858, I met him accidentally upon a bog, engaged in the arduous labour of cutting turf, and he then told me that he was beginning to feel a slight fulness in the perineum; I therefore fear a recurrence of the calcareous deposit.

Although I am not an advocate for changing the nomenclature of surgical disease, familiar to the profession as "household words," I do think the term, *Fistula in ano*, an objectionable one, and would substitute for it the designation of *Fistula of the rectum*, as one more definite, and less likely to lead to the error that fistulæ, in the neighbourhood of the rectum, are always dependent on a morbid condition of the bowel. My own experience would lead me to infer, that fistulæ, in the neighbourhood of the rectum, easily operated on, and cured with facility, are not of common occurrence. In support of this opinion I subjoin a short *resumé* of the cases of fistula which have come under my own observation, in a moderately extensive practice, within the last ten years.

No. 1.—A gentleman, aged 70, who was labouring under retention of urine, from enlarged prostate, also suffered from a fistula near the rectum, which had been cut no less than ten times by a distinguished surgeon. He died some years afterwards, his fistula uncured.

No. 2, 3, and 4, were fistulae, occurring in patients labouring under an advanced stage of phthisis pulmonalis.

No. 5.—An hospital sergeant, whose disease commenced in India, two years previous to my operating on him; after three months of careful dressing, he was cured.

No. 6.—The patient whose case I have detailed above.

No. 7.—A case at present under my observation; his fistula commenced about thirteen years ago; for many years he neglected it and did not seek proper advice. Ten months from this date he was admitted into an hospital, and was there cut (he states) seven times. There are at present two fistulous openings, discharging thin sanies; the integument around the anus, stellated by incisions, is red and brawny; on attempting to introduce the finger into the anus, he suffers great pain; the orifice is contracted and hardened; and taking into consideration his constitutional symptoms, I think the local disease has assumed a malignant character.

No. 8.—A man, aged 42, who was last year operated on in an hospital, for fistula of the rectum. After the operation, he experienced much relief; but the fistula did not altogether close, a small orifice remained, which discharged a little purulent fluid. He is now recovering from a fresh abscess in the cellular tissue; and a new fistulous opening has formed, whilst the old one continues unclosed. He looks pale and anæmic, and my present efforts are directed to the restoration of his strength, in which if I succeed, I may operate, as I cannot at present discover any complication.

I have to remark that but one of the cases of fistula I have met with, occurred in a female, and that was one of the cases suffering from pulmonary affection.

Reviews.

The Principles and Practice of Operative Surgery.

By F. C. SKEY, F.R.S., &c., Surgeon to St. Bartholomew's Hospital, &c. Second Edition.
London: Longman & Co.

Several excellent short treatises on Operative Surgery had already received the approbation of the profession, before Mr. Skey published his first edition of this work, which may account for the long interval—considering that it may be reckoned a manual—which elapsed before a second was called for, the interval being seven years. The truth is, that the large amount of sound practical

information conveyed in the works of Liston and Syme, and the clear, precise, and admirable directions in Mr. Ferguson's popular manual, left little to be desired, as far as British surgery was concerned, for further contributions to the literature of operative surgery. Whatever would be said, must be a repetition, which, like an echo, though the same, was fainter than the original. For those who desired information on foreign modes of operation, there were the elaborate treatise of Velpeau, and Monsieur Malgaigne's smaller work, of which we have an excellent translation. That some of these were deficient in the principles of operative surgery is no doubt true; yet not all. In Mr. Ferguson's book especially, excellent principles in guiding our choice of operation, and deciding on the appropriate application of it, are laid down; and Liston, in his own abrupt and decided way, gives good principles of operative surgery, for the guidance of the young surgeon. Mr. Skey's work will certainly take its position among these established favourites. It has the great merit of the earnest style and vigorous power of description of one who has acted or seen what he tells, and who reasons from himself. "It has been," he says, "the habit of my mind to lend but a hesitating obedience to the influence of authority unsupported by reason." We are however happy to observe a more sober tone, and less effort to appear novel, than was apparent in some of his lectures published in the *Lancet*. The student will find good descriptions, with fair woodcut illustrations, of all the more recently-invented instruments, for cleft palate, tracheotomy, paracentesis, the *ecraseur*, &c. Our space is too small to give such extracts as the merit of the work would render acceptable to our readers; we must therefore content ourselves with a single one, containing Mr. Skey's description and appreciation of the *Ecraseur*. His observations are excellent:—

"The *Ecraseur* (crusher) is an instrument of modern invention, and is derived from the French school of surgery within the period of a few years only. At the present date it only claims the indisputable charm of novelty, and its real merits possibly have yet to be ascertained. The *Ecraseur* consists of a strong steel chain, forming a loop at the end of two metal grooves, which is drawn tight by a wheel and axle, or other mechanical power, employed with sufficient force, to tear asunder by slow degrees, any textures embraced within the circle of the loop. The force of the *Ecraseur* is such as to be irresistible to any structure of the human body, bone alone excepted; and the advantages claimed for such an instrument are unquestionable, provided the morbid structure to be removed present the attributes suitable to the development of its peculiar power. On such conditions, but on such only, the *Ecraseur* is an instrument of some utility, which may retain its place among the implements of the surgeon. When these conditions are neglected, its defects will so largely predominate over the merits of the instrument, that it will be rejected as a coarse and mischievous appendage to the table of the operator. The *Ecraseur* purports to separate growths from the surface of the body, the removal of which, by a cutting edge, would probably be attended by objectionable bleeding. By such powerful constriction the integuments are drawn together and

the point of junction of the tumor with that of the body, and thus the exposed surface left behind is reduced to an indefinitely small and almost nominal area, the healing process of which would be apparently perfected in the course of a few days. The conditions required for exhibiting its powers consist in a growth, whether skin or other morbid product, indicating probable loss of blood on removal by the knife, and attached to the body by a narrow neck. Without the liability to hemorrhage, the offices of the *Ecraseur* are misapplied, because the growth may be more readily removed by the knife.

"The merit of the *Ecraseur* consists in the exercise of a slowly-applied crushing influence, by which the blood vessels are disorganized by severe pressure, and the textures brought within the chain-loop are compressed, blended, and rent asunder. On the first introduction of the instrument into this country, certain rules were recommended for its employment, by which intervals of time were required, or supposed to be required, during its application, for the coagulation of the blood within the vessels leading to the growth. But coagulation of the blood would appear to be by no means an indispensable condition to its use; because it is obvious, that so great a degree of pressure is employed, that the vessels are themselves disorganized, as the general mass and their orifices are blended with the tissues around; escape of blood therefore is impossible, and although coagulation of the blood may not occur during the act of separating the tumor, it will doubtless quickly follow the operation. The second condition consists in the appropriate form of the structure to be removed. The circle which is to be subjected to the pressure of the chain must be clear and definite. The line of junction of the tumor should be naturally constricted, because the chain involves in its pressure the textures on both sides, and this appears to be the most serious of the objections to the employment of the instrument, viz., its destructive influence on the parts around; for however complete the operation, however small may be the surface exposed on the separation of the growth, yet, such is the fatal influence of the violence done to the parts around, that separation almost inevitably follows.

I have at this moment three patients in St. Bartholomew's Hospital, from whom I have removed diseased growths, by means of the *Ecraseur*; and in each case the exposed surface is at the present time greater than it would have been, had the operation been undertaken with the knife. From two of those persons I removed large hypertrophied growths from the prepuce. A weighty objection to the *Ecraseur* is founded on the fact, that we cannot define the exact line of separation it may accomplish between the morbid and the healthy structure. The drag on both during the early part of the operation, or until the division is partly completed, is immense; the introduction of one or more needles can scarcely protect the tissues beyond them from being involved in the increasing force of the traction, as the loop is reduced in size. The consequence is, that when the operation is completed, by the entire separation of the morbid mass, we find a want of nicety and exactness in the line which would have been more perfectly effected by the knife. And assuredly, when the instrument is employed on a growth having no contracted neck—in other words, when the substance included in the loop is large, the integuments around, when freed from the powerful agency by which they are drawn together, will gradually retract and leave a larger surface exposed, which the immediate introduction of sutures will fail to maintain in apposition, by reason of the destructive power that has been exerted both on the integuments and on the textures beneath them. No doubt, cases may be found—rare examples of disease—whose form and nature may appeal to the *Ecraseur* as a warranted implement of surgery, but it will not frequently succeed in carrying out the intentions of the operating surgeon, if those intentions embrace a clear wound, limited in size, and of healthy character. The

time consumed in the operation is longer than removal by other means; the pain without chloroform is great; and the principle as much allied to the period of barbaric surgery, as any invention of the olden time."

The Journal of Psychological Medicine and Mental Pathology. Edited by FORBES WINSLOW, M.D., D.C.L., President of the Association of Medical Officers of Asylums and Hospital for the Insane.

The number for October, of this admirable periodical, presents to our notice some papers of even more than average interest, and upon subjects of a most attractive nature.

We would direct special attention to the eloquent address of the learned and accomplished editor, at the meeting of the Association of Medical Officers of Asylums for the Insane, recently held in Edinburgh. After referring, in touching language, to the pleasure it afforded him that the Society, over which he so fitly presided, should have selected as its place of meeting a city which, from its associations, may well be looked upon as hallowed ground, he proceeds to the special subject of his address—viz., *Lunacy Legislation*. He commences by recommending, that in all legislation relating to the insane, certain first principles should be recognised. In the preamble to every legislative enactment referring to the care and treatment of the insane, the various phases and types of mental disease should be viewed as the effects of certain deviations from a healthy and normal condition of the brain, curable by a well-directed course of moral, medical, and hygienic treatment; that asylums should be considered *hospitals* for the treatment of a form of brain disorder, only to be successfully grappled with by educated and experienced medical men.

With this recommendation we most cordially agree, and we would gladly see some means adopted by which the services of such men could be secured for the poor sufferers afflicted with mental alienation. In many instances the persons undertaking the care of the insane are utterly incompetent to perform the task they assign to themselves, and in very truth take it up as a mere bread-earning trade. In the case of public asylums, the greatest attention should be devoted to the selection of medical superintendents by those in whose hands the power is vested, whether it be exercised by the executive government or by a board of governors. In all institutions, moreover, there should be one or more (according to the size of the asylum) visiting physicians, of large experience, who would co-operate with the medical superintendent in the treatment of the mental disease, and whose knowledge of *bodily* disease, acquired by constant intercourse with the sick, in hospital and in private practice, would be a guarantee to the public that the inmates of asylums, when labouring under corporal ailments, would have the

same advantage as those who are received into general hospitals.

Dr. Forbes Winslow makes some observations on the constitution of the Board of Commissioners, and then refers to the state of the law regarding the preliminary measures required previously to the confinement of persons alleged to be of unsound mind, in lunatic asylums. He says:—

“There always has been a great outcry against the power which the law places in the hands of two qualified medical practitioners. *Prima facie*, there are undoubtedly grave objections to this clause. If we always could guarantee the respectability, the intelligence, and practical experience, of the members of the medical profession called upon to certify to the mental condition of a person, prior to his being placed under legal restraint, no possible objection could be raised to the law as it at present exists; but unfortunately it does occasionally happen, that very incompetent men are called on to certify, and by doing so without sufficient ground or reason, serious odium is brought upon all persons associated with asylums for the treatment of the insane. The force of public opinion is, beyond all doubt, against this part of the legislative enactment, and we had better, therefore, with a good grace, bow with submission to the *vox populi*, and consent, in this particular, to some modification of the law.”

Having pointed out the “absurdity” and “impracticability” of some proposals made by the Law Amendment Society, Dr. F. Winslow propounds his own plan:—

“I would suggest the appointment of educated, respectable, and experienced practitioners, delegated with *quasi* judicial and magisterial functions, to be summoned for the purpose of countersigning the certificates of the medical men; thus sanctioning, if they thought proper, the proposed measure of confinement. These Inspectors of Lunacy, or Medico-Legal Jurists, might be appointed to preside over certain districts in the metropolis, as well as in the provinces. Being unconnected with and unknown to the relations and friends of the patient, and strictly independent of the medical men called in by the family to certify to the fact of insanity, I feel assured that the signatures of gentlemen holding such independent official appointments would relieve the public mind of all undue anxiety relative to the unjust confinement of persons alleged to be insane.”

Another point, in reference to certificates, is noticed. Dr. F. W. considers the law with regard to the confinement of persons in private lodgings and unlicensed houses is too stringent in its operations.

“There is a vast amount of incipient insanity, and morbid conditions of mind, connected with obscure brain diseases, that require, with a view to the adoption of efficient medical curative treatment, to be removed temporarily from irritation and excitement, often necessarily incidental to a continuance among relations and friends. In many of these cases, no progress towards recovery can be made until the patient is removed from home, and ceases for a time to be a free agent. Is it not unwise, I would ask, that the law should make it imperative that this class of mental invalids should be formally certified to be insane, and visited as such by the gentlemen appointed by Act of Parliament to examine all persons legally confined as lunatics? I am quite satisfied that there are many patients who are kept at home under great disadvantages, as far as the question of recovery is concerned, in consequence of this stringent provision of the law.

“Could not some modification of the law be suggested, to meet this class of case? Would not the public be sufficiently protected from the interference of their friends and relatives, if every person admitted such uncertified cases into his house or lodgings were compelled to make a return of the fact to the proper authorities—viz., the Commissioners in Lunacy or the District Medical Inspector?”

We have often had occasion to condemn the haste with which relatives, occasionally with the advice of medical men, have consigned a member of their family to a lunatic asylum, whose mental malady was some slight and passing delusion, and whose prospects in after-life are likely to be ruined by the stigma of having been an inmate of a lunatic asylum. We have in some cases interposed, and recommended separation from the family, and placing the patient under judicious care; and have had the satisfaction of seeing the individual in a short time restored to the enjoyment of mental health.

There are other cases requiring to be placed under a certain amount of restraint, which are by no means fit subjects for a lunatic asylum. I allude to persons labouring under organic cerebral disease of an utterly hopeless nature. To such an asylum holds out no advantages; and by preventing, it may be, the father of a family from being sent into an institution devoted to the treatment of the insane, we save the family from the imputation of being, by the right of inheritance, as it were, predisposed to mental disease.

We would gladly refer to some of the other articles in the *Psychological Journal*, but our space does not admit of it. We have had much pleasure in devoting all at our disposal to a notice of Dr. Winslow's important observations upon a subject fraught with no ordinary interest to many of our readers.

Selections from British & Foreign Journals.

ON THE INSANITY OF CHILDREN.

M. Brierre du Boismont has lately published some remarks upon this subject, in noticing the dissertation of M. Le Paulmier.

M. Brierre du Boismont accounts for the comparative exemption of childhood from mental aberration, by the absence of many of the causes so potent in its production in adult life; not that children do not feel acutely, but their sensations are of a fleeting nature, and in this lies their protection. Nevertheless, children who inherit a disposition to mental disease, or who possess a highly-nervous temperament, and who are exposed to favouring circumstances, occasionally manifest undoubted symptoms of the malady.

Haslam, Perfect, Franck, Burrows, and Spurzheim, have given cases of children under eleven years of age. Greding gives an account of a child of eighteen months, which died of marasmus. It was brought into the asylum at Wuldham with its mother (who was insane), and was then scarcely nine months old. It was subject to paroxysmal nervous attacks, which ended either in an indescribable laugh, or in a fit of mania, during which

he little creature tore everything she could lay hands upon. Jacobi refers to several cases of insanity in children, in the Asylum at Siegburg. Esquirol treated two children—one of eight and another of nine years—and a girl of fourteen, all labouring under mania; he was also consulted about a child of eleven, in which the disease was melancholia.

Marc gives an account of a little girl of eight, who freely admitted that she wished to kill her own mother, her grandmother, and her father. Her object was, to be possessed of their property, and to have an opportunity of indulging her passions. The child was morose, pale, and silent; when spoken to, her answers were very abrupt. Her health was improved by a residence in the country, but on being brought back to town, she became again pale and melancholy. For a long time he cause remained undiscovered; at length it was found that she practised onanism, which she openly avowed, regretting at the same time that she had not the opportunity of indulging her passion with boys.

M. Briere du Boismont has himself noted four cases, of children of six, seven, and ten years of age, in whom the symptoms of mental disease were manifest; and at present he has under his care a female child of three and a half years old, born of a paralytic father, which shows the strange caprices; at one time sad and melancholy; again in the most violent fits of rage, without any cause, and not to be appeased. The intelligence of the child is far beyond its years.

The cases of insanity brought under notice by Le Paulmier cannot be said to belong to childhood; his children are young people; for of thirteen examples, three are fourteen, two fifteen, three sixteen, and five seventeen years of age. Before, however, analysing Le Paulmier's work, Briere du Boismont turns to English, French, and American authors for information on the subject. In Turnham's observations and statistics of insanity there is a table of 21,333 cases. Under ten years, eight cases, and from ten to twenty, 1,161 cases are noted. According to Turnham, the greatest number of cases of insanity occurs between thirty and forty. In the United States, however, physicians have remarked the disposition to mental disease is stronger between twenty and thirty than between thirty and forty; and this is fairly ascribed to the earlier age at which young men enter the world and engage in business and politics. One of these beardless men of business said to his physician, "I am convinced this kind of life which I lead will drive me mad or kill me; but I must go on." In four American asylums, which contained 2,790 patients, 33.73 per cent. were between twenty and thirty, and 24.41 per cent. between thirty and forty years of age.

That the kind of education which the youth in the United States receive has a powerful influence on the development of insanity is proved by Evans and Worthington, in their reports of the Pennsylvania asylums.

Dr. Wigan gives, in his unpublished writings, an account of crimes committed by young people without any object. The age of the youthful malefactors was between sixteen and seventeen for girls, and between seventeen and eighteen for boys. There was this in common, that there had not previously existed the slightest animosity towards the persons against whom they perpetrated outrages. According to Wigan, the greater number of these young people had epistaxis, which, among the females, appeared with the regularity of menstruation. The crimes were generally committed after the temporary cessation of this habitual flux.

Delusianne and Schnepf have also furnished information on the insanity of early life. The statistics of Boutteville exhibit insanity amongst children in no insignificant proportion. The maximum is presented between the ages of thirty and thirty-four. From five to nine, 0.9 per cent.; ten to fourteen, 3.5; from fifteen to nineteen, 20 per cent.

Aubanel and Thore observed in the Bicetre, in the year 1839, eight cases of mania in children, and one of

melancholia, from the age of eleven to eighteen years. Mental disease is undoubtedly more frequent in childhood than is generally supposed. Hereditary tendency to disease, and ill-directed education, play an important part in its production.

A writer in the *Revue des Deux Mondes*, for August, 1848, has with much ability accounted for the frequency of insanity in France. Le Paulmier recognises three forms of mania—maniacal excitement (*excitation maniaque*), mania, and incoherent mania. In the first grade of mania the dissociation of ideas is not always recognisable—it nearly resembles the early stage of drunkenness; in the more advanced degree the dissociation of ideas is remarkable; while in the highest it is such, that no longer two sentences, and sometimes not even two parts of one sentence, are connected.

The diagnosis of the mania of children is at times difficult; meningitis may be confounded with it; but in general the headache, the dilatation of the pupils, and the nausea and repeated vomiting, afford means of fixing the line of demarcation. Mania with stupor (*d'une sorte de stupeur exaltique*) approaches closely certain forms of mental alienation which occur after epileptic seizures, and in which the excitement is associated with obtuseness and hallucinations (*obtusion hallucinatoire*). With respect to prognosis, the insanity of early life, according to the observations of Le Paulmier, ends in recovery; however, Delasienne has made the remark, that a great susceptibility remains, and a disposition to a return of the mental disease; and accordingly, that many patients may be found in the wards appropriated to adults, who had formerly been successfully treated in the division assigned to children.

M. Briere du Boismont concludes his notice of M. Le Paulmier's dissertation by giving the result of his own experience. He says, that in a list of forty-two young people in whom the mental disease commenced between fourteen and sixteen years of age, eighteen times was it inherited from their parents.

In by far the greater number of cases, the disease has manifested itself partly under the influence of hereditary predisposition, and partly under the influence of puberty or menstruation. On inquiring from the parents the character of the children, the answer has almost always been, that they were, without any cause, sometimes sad, and at other times wild and ungovernable; they could never apply themselves steadily to work; they had no talent, or if it existed, it only flared up brilliantly for a moment; they would submit themselves to no rules. Some were apathetic, and were not to be excited by emulation; others exhibited a volatility which could not be restrained; many had been subject to spasmodic attacks. The incubation period was often protracted. In eighteen instances recovery took place, but the persons were liable to relapse; there also remained a remarkable strangeness of character, and an inability to assume any fixed position in life. Some afforded insecure evidence of the recovery being permanent. The conclusion is, that though, in a certain number of cases, recovery takes place, the mental alienation of children and young people is a most serious disease—partly from their antecedents, and partly on account of the imperfect development of the organs. Adducing the foregoing facts in opposition to Le Paulmier's, M. Briere du Boismont nevertheless accords to the dissertation the mead of his approbation, looking upon it as the production of a thinking mind, and as a proof that themes selected by authors themselves are more productive of fruit than those which are the subjects of prize essays.

BED-SORES; TANNATE OF LEAD.

Mr. Leclerc, senior, physician of the civil hospitals at Laon, indicates in the *Revue Médicale* a method which is calculated to prevent mortification over the sacrum. As soon as the skin reddens or becomes pain-

ful, he prescribes a layer of tannate of lead in a humid state, to be spread over the threatened part, and the following is the formula for its preparation :

Corticis quercus contusæ . . . 1 oz.
Aque 8 oz.

Reduce by boiling to 4 oz; strain; add
Liq. Plumbi diacetatis q. s. until no further precipitate is formed.

The deposit is collected upon a filter.

M. Leclerc asserts that of all the topical remedies which he has used for the treatment of this most troublesome complication of protracted disease, none is preferable to tannate of lead employed as he describes.—*Journal of Practical Medicine.*

TREATMENT OF CROUP.

Mr. Jodin, in a recent communication to the Academy of Sciences, on the nature of croup and on the treatment of this disease by a new method, states that his researches have led him to the following conclusions :

1. That croup and pseudo-membranous angina are merely parasitical diseases, due to the formation of fungi.

2. That the treatment of these affections requires neither general medication nor incendiary cauterizations; and that they may be cured by simple parasitidal applications.

After enumerating the various therapeutical means resorted to in this and in analogous disease, Mr. Jodin declares that he much prefers to these uncertain, alarming, or dangerous remedies, the sesqui-chloride of iron, which completely impregnates the fungus, exercises its action on the surface only, and may be absorbed without danger. This medicine destroys the parasitic growth, and also modifies favourably the hemorrhagic condition constantly observable in the affected parts and in their neighbourhood; it further induces expectoration, and thus promotes the rejection of the false membranes.—*Ibid.*

ON THE PERNICIOUS CONSEQUENCES EN- TAILED BY MARRIAGE BETWEEN NEAR RELATIONS.

The *Art Medical* reprints from the *Nowelliste de Rouen* the following extract from an American paper :
"In the medical meeting which has just been holden at Washington, Dr. S. M. Bemis, of Kentucky, presented a very interesting report on the pernicious consequences entailed by marriage between near relations.

"The investigations made by Dr. Bemis have proved that 10 per cent. of the deaf and dumb, 5 per cent. of the blind, and about 15 per cent. of the idiots, found in the eleemosynary establishments in the United States, are the offspring of the marriage of first cousins. Out of 787 marriages between cousins german, as ascertained by Dr. Bemis, the latter has arrived at the conclusion that 256 had produced blind, deaf and dumb, or idiot children. Dr. Bemis's interesting and useful researches, on which the report is founded, were made in the State of Ohio. In the central counties, to which the census of 1850 ascribes a population of 1,526,238 souls, Dr. Bemis has discovered 483 marriages between first cousins. Of this number, 332 have been sterile, or have produced healthy children, whereas the 151 others have given birth to a sickly generation.

"Taking these particular data as the basis of a general table for the whole Union, of a white population of about 24 millions of souls, the following results would be obtained:—6,321 marriages between cousins german, 3,677 of which would produce infirm children in the following proportion: 1,116 deaf and dumb, 468 born blind, 1,854 idiots, and 239 scrofulous.

"Marriage between first cousins is infinitely more rare in the United States than in Europe; nevertheless,

Dr. Bemis's report proves, at the same time, unhappily, their too frequent occurrence, and the sad results consequent upon them for the moral and physical condition of the children.

"Several States of the Union, Kentucky among others, have just passed an act, formally forbidding marriages between cousins german. A similar law, although at first sight it may appear to encroach on the rights of citizens, becomes in reality, in the presence of the figures we just quoted, a measure of social prudence and almost of humanity."

DR. J. F. WEISSE, OF ST. PETERSBURGH. ON THE EMPLOYMENT OF RAW MEAT IN THE DIARRHŒA OF WEANED CHILD- REN.

The observations of Dr. Weisse are a supplement to a former communication upon the use of raw meat in this affection. He commences with the well-known quotation from (1 Mos. c. 9, v. 4)—"But flesh with the life thereof, which is the blood thereof, shall you not eat."

In five cases in which little children were treated with raw meat (*Fleischkur*), tapeworm had appeared: and in three of them, to his own knowledge, the *tænia solium* had been passed.

The first case was that of a child over two years of age, which had been subjected to the "*Fleischkur*," by Dr. Weisse's advice. The family physician had informed the parents of the probability of tapeworm being generated in consequence, and the result proved the anticipation to be correct.

A child of four years of age was brought from Pskov to St. Petersburg, for Dr. Weisse's advice, suffering under tapeworm for two years; and on the mother being asked if the child had ever used raw meat, she answered in the affirmative, but that it was a long time since, perhaps three years.

A third case was the child of a woman who died of psoas abscess after her confinement. The child was a seven-month one, small, weak, and anæmic, and was saved by the greatest care, by good nurse's milk, by spirituous frictions and strengthening baths. At the period of dentition the child was attacked with dangerous diarrhœa, when Dr. Weisse directed, that in addition to the nurse's milk, the child should be fed with grated raw meat. This food was taken by the child with great avidity, and was manifestly beneficial. The diarrhœa ceased, the child gained strength, the pallid hue of the cheek was replaced by the rosy tint of health, and the teeth appeared without difficulty. At the age of two years a large piece of *tænia solium* was expelled.

The occurrence of such cases would naturally have the effect of preventing mothers who have heard of this from submitting their children to such treatment. Caution, then, is necessary in the use of the *Fleischkur*, which in some cases should not be had recourse to, except when other means had failed. If the worms appear, then the parents (who should always be informed of the possibility) will be less distressed, seeing that their child is saved from death.

Dr. Weisse, in conclusion, says that in future he will direct that the child, after each time it is fed with raw meat, shall get a little wine; and thus, probably, the brood of the tapeworm may be destroyed.

Dr. Marcus, of Rendsburgh, offers the following explanation for the production of tapeworm by the eating of raw meat, a fact noticed by Dr. Weisse, of St. Petersburg.

It is known that *Küchenmeister* has proved that the tapeworm passes through several metamorphosis, before it appears as such. He has also shown that the worm in sheep is a transition form. If it be given to dogs, tapeworm is produced in them; if, on the other hand, young sheep be fed with fragments of the mature tapeworm; hydatids are produced in the brain. A like

circle is observed in the human species and swine, since measley meat eaten raw, as Dr. Rieke, of Nordhausen, observed, causes tapeworm to a great extent—a fact which is noticed in his neighbourhood, where the lower order live much on the so-called “Bratwurttfleisch.” By cooking or by smoking, the worm of measles (cysticercus) is killed or rendered harmless. The production of measles in swine takes place thus:—Fragments of tapeworm, filled with impregnated eggs, being evacuated from the intestinal canal of man, are devoured with the fæces by these animals; subsequently the embryos, creeping out, pierce through the walls of their intestines, and give rise to measles. It may be assumed that the cattle in Russia, especially such as are kept in meadows, eat the tapeworm eggs of man, of the dog, &c., &c., and that the embryos deposited in the flesh are capable of producing tapeworm in those who eat of it raw. Beef, then, may be looked on as analogous, so far, to measley pig-meat, and should not, therefore, be eaten raw—at least the flesh of oxen which are fed in meadows or on fresh green food.

In connexion with this interesting subject, brought under our notice by Dr. Weisse and Dr. Marcus, we may be permitted to quote the great work of Küchenmeister, who has thrown so much light upon all connected with animal and vegetable parasites which infest the human body. He says, speaking of cysticercus cellulosa:—“The ordinary habitation of this vesicular worm is the flesh of the pig; and we find that tænia solium is almost entirely unknown where the use of this flesh is avoided—as, for example, among the Jews and Mohammedans who live strictly according to their religious precepts, and who are not deprived of the opportunity of procuring their meat from “clean” butchers’ shops, in which pork is never sold; and also among the Abyssinian Carthusians, who keep a strict fast, and only feed on fish; or where the breeding of pigs is given up—as in Iceland, where, in consequence, tænia solium is very rare.

The frequency of tænia solium in butchers and their families, according to Küchenmeister, arises from butchers contaminating their hands in sausage-making, and also the blades of their knives, in cutting up and selling meat. When they wipe their mouths with the hands thus contaminated, or place the knife bedaubed with cysticerci in their mouths, the scarcely perceptible cysticerci are introduced into their mouths and swallowed. To blood and liver sausages the cysticerci may be communicated by the knife which cuts them up.

It is now satisfactorily proved that pork is not the only meat capable of producing tapeworms. From the facts already alluded to it appears that raw beef may contain the germ of the common tapeworm. In seven anæmic children brought up upon raw flesh, Scharlan, of Stettin, found tapeworm, and these had no raw pork. Pork, however, appears to be, above all other flesh, that which most surely favours the growth of these parasitical animals. It has been suggested that probably Moses was acquainted with Küchenmeister’s metamorphosis of tapeworm, and that hence his prohibition as to pork, which is still religiously adhered to by the Asiatic Jews.—*Journal für Kinderkrankheiten.*

PRACTICAL MEDICINE.—Two large wards of Guy’s Hospital, containing nearly one hundred medical cases each, have been set apart for the last fortnight for the examinations of the University of London. The candidates for M.B. are taken into these wards, and made to give a diagnosis of the cases, and prescribe accordingly!

According to M. Beauvais, odorous matters are not eliminated from the kidney in Bright’s disease. Thus asparagus, turpentine, &c., does not communicate any smell to the urine. M. Beauvais considers this to be a diagnostic sign, pathognomonic of Bright’s disease.

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Sir Benjamin Brodie has been elected President; Dr. Francis Hawkins, for many years Registrar to the Royal College of Surgeons, has been elected Registrar and Secretary to the Council, at a salary of £500 per annum. The Bank of England was appointed Treasurer; Mr. Green and Mr. Nussey to be Trustees.

The fees to be paid are, £2 in respect of qualifications obtained before January 1st, 1889, and £5 for qualifications obtained after that period; £1 for insertion of additional qualifications, in accordance with clause XXX. of the Act. From the amount thus to be raised the sum of £500 has been voted to preparing a *National Pharmacopæia*, which is to be published in the English language.

PATHOLOGICAL SOCIETY OF DUBLIN.

The Pathological Society held their first meeting on Saturday last,

Mr. HAMILTON, V.P., in the Chair.

Mr. BARTON presented two very interesting specimens; one of a very large sero-cystic tumor which involved the removal of the entire breast; the other of a pendulous growth from the side of the nipple. Both had been removed in the Adelaide Hospital by Dr. Walsh.

Dr. MURNEY exhibited a heart, the subject of fatty degeneration and valvular disease.

The officers for the ensuing year were then elected.

DUBLIN UNIVERSITY ZOOLOGICAL AND
BOTANICAL ASSOCIATION.

At a meeting of the Dublin University Zoological and Botanical Association, held on the 19th, Dr. McDonnell read a paper on "The Urticating Organs of the Actiniae, and on those causing Spasmodic Action when suffered to touch the nerves of a frog prepared for electrical experiments." This action, Dr. McDonnell had thought, was caused by electricity generated in these animals, and had read a paper stating this view at a previous meeting of the Association (see page 150); but further experiments and the use of very delicate galvanometers had caused him to entirely abandon this view of the cause, and ascribe these movements to the local irritation caused by the poison contained in the thread-cells of the actiniae. The author detailed a number of experiments to prove this assertion.

EFFECT OF SANTONINE ON THE VISION.—Santonine, a crystallized, bitter substance, which we obtain from the flowers of the "artemisia santonica," has this singular property, that persons who make use of it, see, at the end of a few minutes, all objects become a greenish colour. This phenomenon is already known, by two or three observations published in 1855, but hitherto no one has followed up the subject. The colour of the sight varies according to idiosyncrasies, and the doses exhibited. In some individuals it is not permanent, but intermits; it disappears for five or six minutes, then returns. In any case, it has not existed more than one day: what is the cause of this phenomenon? Some have thought to explain it by a momentary icterus, or yellow colour of the serum of the blood. M. De Martini does not think that the effects, if variable, can be explained by these two causes, both of which are constant. How can the icterus or yellow colour of the blood make persons see successively, blue, red, green, &c.? All this leads our author to suppose that in santonine a molecular action upon the retina takes place, by which the tension and vibratory reaction of the nervous molecules of that membrane are changed.—*Revue Médicale*.

M. CLOQUET'S RESIGNATION.—This well-known professor of surgery, at the Faculty of Medicine of Paris, has just resigned his post, on account of failing health. The Emperor, wishing to prove how highly the long services of M. Cloquet are appreciated, has appointed him honorary professor, with all the privileges attached to the office.

TUBAGE OF THE LARYNX.—M. Créquy reports a case of croup in which this operation was performed by M. Bouchut—its patron. He says that he thinks the tubage advanced the asphyxia; the tube acts just like a tight ring on the finger, and creates a congestion around it and above it; a swelling is thus formed which acts like a valve to the tube.

ACETONE.—This new anæsthetic, exhibited by Dr. Kidd at the Medical Society of London, is being used by M. Bechamp, in Paris, where it is found not so deadly in its action as chloroform, but to be more rapid in producing anæsthesia.

DEATHS.

At Hongkong, on the 12th of September, Dr. AURELIUS HARRLAND, of congestion of the brain. Dr. Harland was the son of a physician at Scarborough, Yorkshire, who still lives to lament his loss. He graduated in 1844, at Edinburgh University, where he bore away many honours, and was looked on as the foremost medical student of the day, and was elected member of various societies. Soon after passing the London Royal College of Surgeons he went to Hongkong, where he spent eleven years, previous to his recent visit to England. He there acquired a reading knowledge of Mandarin, and devoted much time to the study of Chinese medicine and physiology, communicating some of the results of his labours to the public through the journal of the China branch of the Royal Asiatic Society. For some time past he had been carefully and steadily collecting materials for a comparative study of the natural productions of Hongkong. After Dr. Harland's death the Government sent round a circular notifying his decease, and expressing the deepest regret at the loss of so valuable a servant, and a hope that all officers would attend his remains to the grave. This was a most unusual official document, and may be considered as a proof of the esteem in which he was held.

CHRISTIAN BENDT, the well-known Professor, lately, of cancer of the liver, at Copenhagen.

M. GUNSON, lately, at Lyons. This eminent operator was the first to perform the removal of the upper jaw.

On the 21st, at Banagher, in the prime of life, of fever, caught in the discharge of his duties, as Medical Officer of the Banagher dispensary district, Dr. George Pierce, jun., son of George Pierce, M.D., Tullamore, Surgeon of the King's County Infirmary. He was a gentleman of high reputation, and is much regretted by all who knew him.

In the prime of life, of Bronchitis, Dr. Smithwick, Medical attendant of Newcastle and Ardinan Dispensary districts, County Tipperary.

Professor Soubeiran has just died, after a long illness, at the age of sixty. Besides being Professor of Pharmacy at the Paris Faculty of Medicine, and at the School of Pharmacy, he was Director of the Central Pharmacy of the Hospital; he was a Member of the *Académie de Médecine*, and had attained to the highest position by reason of his numerous and valuable works.

COMMUNICATIONS

Received from Dr. Gairdner; Dr. Moore; Dr. Hildige; Dr. Babington; Dr. Duigan; Mr. Collis.

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INTRODUCTORY LECTURE,

DELIVERED IN THE MEDICAL SCHOOL OF TRINITY
COLLEGE,

November 1st, 1858.

By BENJAMIN GEO. M'DOWEL, M.D. T.C.D.

Professor of Anatomy and Physiology in the
University of Dublin.

According to old custom, the duty of delivering the opening lecture of the medical session devolves upon the Professor of Anatomy and Surgery. I confess I have approached the task with much diffidence, and I trust, therefore, there are none who will accuse me of affectation, if, on the present occasion, I ask for your forbearance and indulgence.

It might, I admit, be supposed that time and custom would have made the present a light task, or would at least have divested it of much of the anxieties inseparably connected with it. For several years I have been accustomed to lecture to large classes of pupils, and on more than one occasion have been entrusted with the duty of inaugurating the medical session in a school of no mean reputation; whilst in the room in which we are to-day assembled I have long been accustomed, without hesitation, to express my opinions freely on questions relating to pathology and practical medicine; nevertheless, I feel that the circumstances under which I appear here to-day are altogether different and peculiar. Elected but a few weeks ago to the duties of this distinguished position; impressed, in the fullest degree, with a sense of the responsibilities which attach to all those who would teach those sciences which constitute the very foundation of medicine and surgery; anxious, above all, that the efficiency and reputation of this celebrated school shall at least lose nothing in consequence of my connexion with it: such are some, and some only, of the anxieties which press upon me to-day. In addition, I cannot forget, nor would I wish to do so, that in coming into this time-honoured institution, I am the successor of one of the most eloquent and popular lecturers who ever held a pro-

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fessorial chair in this, or perhaps in any other University. And here I feel that I should incur well-merited censure, were I to neglect the earliest opportunity, such as is to-day afforded me, of adding my tribute of respect to the honoured memory of one so universally esteemed and regretted; at the same time, it must appear that any lengthened eulogium on the late Professor of Anatomy and Physiology would be superfluous, at least before such an audience, and within the precincts of this University; for some whom I address were his pupils, as I was myself, and can testify to the great excellency of his teaching; others are present who were his intimate friends, and do not need that I, a comparative stranger, should remind them of the many excellent qualities of the friend they have lost; whilst all who are here assembled are, I doubt not, convinced that he has left behind him a name and a reputation which few have succeeded in acquiring. Were I to recall his labours and services in the promotion of science, it would be my duty to describe a life of persevering exertion and activity, during the last twenty years of which, he discharged the duties of this professorship with a zeal and an untiring energy which have never been surpassed. We know, however, that these exertions have been appreciated, and that in this University, in the scientific world beyond, and in society at large, his death has occasioned a loss which cannot easily be supplied.

More might be said, and better, on this subject; but if it be true that there are some men who need no eulogium, then have I said too much; yet I cannot refrain from adding the conviction of my mind, and I doubt not of yours also, that wherever untiring energy and earnestness in diffusing knowledge—in whatever circle the gifts and graces of a highly-educated and enlightened mind are appreciated—there, and by all such, will there be an enduring remembrance of the name and memory of Professor Harrison.

In the year 1824, the late lamented Professor's predecessor delivered his first lecture in this school. This theatre in which we are now assembled had

just been built, and the reputation of the school attracted large classes within its walls. In that lecture the Professor dwelt much and ably on the advantages of anatomy and physiology, not only to the student of medicine, but to the geologist and student of natural history.

In looking over this lecture, which I met with accidentally a few days ago, I could not help thinking how different was the position of the student of medicine of that day, as compared with the more favoured student of our own times; and also how different was the aspect of anatomy and physiology, in a scientific point of view, at that time, compared with its present condition. Now, as then, anatomy and physiology are recognized (perhaps *now* in a higher sense) as constituting the basis of a medical education; but how different at that time were the facilities for acquiring the necessary knowledge. No illustrated pages then assisted the student; nor, indeed, would it appear that treatises on anatomy were at that time written with reference to the student at all. Still more serious was the difficulty which existed of obtaining a proper supply of anatomical subjects, either for the student or for the demonstrative lectures of the teacher. It is unnecessary to enter into this subject, connected with which there is much that is unpleasant, and which it could serve no good purpose to recall to mind; but in order to illustrate the state of feeling which then existed, I may mention (what, indeed, I may say is matter of history), that the respected Professor of Anatomy in this school, with the meritorious object of doing away with the prejudices of less educated minds, bequeathed his body, after his death should occur, to the furtherance of anatomical knowledge. But in vain was the intended self-sacrifice; the feelings of the public ran violently against this department of medical science, until at last the legislature, for the second time in history, interfered, and by an Act of Parliament legalized practical anatomy. We may smile at these things now, but we must not forget to give all the credit they deserve to those men who, under such difficulties, both learned and taught anatomy as well as it has ever been taught or learned since.

Books in abundance, more especially written for the student, now likewise came to his assistance. I need not remind you, that one of the first—and, as it has proved, one of the best—ever written on descriptive anatomy, and which has so long been the text-book of our students, is the work which was contributed, more than twenty years ago, by Professor Harrison.

If we now glance at the changes that have taken place in the aspect of medical science during the same period, we see on all sides evidence of the most marvellous and rapid progress. Confining your attention to my own special department, we find that anatomy may be made to acquire a new character, when viewed in a philosophic manner, as has been done, for example, with such sig-

nal success, by Professor Owen; whilst physiology has assumed of late years, the aspect of a new science, so that no one could recognize its present features in works written only twenty years ago. This great change is to be attributed, in a great measure, to the wonderful discoveries of the microscope, and to the progress of organic chemistry. All our knowledge of *minute structure* dates since then. Knowledge of structure led to knowledge of function; and so a new and more exact science has sprung into existence, based upon certain, because well-ascertained facts.

Here I may observe, that anatomy alone can, comparatively speaking, teach little, since the practical physician or surgeon has to deal with man as a living, not as a dead machine; and this explains what otherwise might appear anomalous—that there were many great anatomists in the world whilst medicine as a science was unknown. The real progress of medical science dates from the time when physiology had its birth, and the advance of practical medicine has ever kept pace with the advance of physiological knowledge. Hence, may we not expect that medicine will make yet greater progress as our knowledge of functions is extended, and the true nature of the phenomena of life is more fully understood?

[A short sketch was here given of the principal phases of development which medicine has passed through, ere it attained its present scientific and practical aspect.]

A remarkable characteristic of anatomical science at the present day is, the great expansion of our knowledge of comparative anatomy, and the application of that knowledge to the elucidation of human structure and functions, which is, in point of fact, the most important aspect of the subject to the student of medicine. But not only has there been this *expansion* of the science, but there has also been a very general *diffusion* of a knowledge of its principles through society generally; so that comparative anatomists are now no longer confined only to the ranks of the medical profession, as was almost exclusively the case a few years ago. There can be no doubt that this growing taste for natural history should be encouraged in every way; and this can be the more readily done, since, as a branch of education, it is always found to be a source no less of pleasure than of instruction.

There is yet another application of our extended knowledge of comparative anatomy, so dignified, and so exalted, that it must not be overlooked; and it must be a pleasure to every right-minded man to know that there have been for years many good and wise men, who have devoted their time and their best talents to extend this application of the subject—viz., as illustrating the wisdom, power, and goodness of the Supreme Being. The line of argument of almost every writer on natural theology, since the time of Paley, has been nearly uniform—viz., to show the evidences of design in

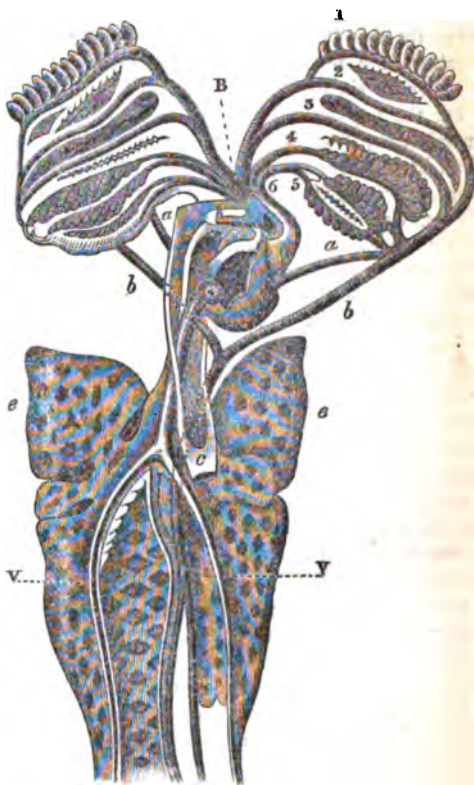
the adaptation of the structure of animals to their peculiar habits and modes of life; but more extended researches have shown that the teaching of nature goes further, and that there is yet another fact, equally marvellous, and equally demanding our admiration—viz., the existence of *organic harmonies* throughout nature, or a unity of plan in the construction of each great division of the animal kingdom; so that whilst each creature bears *its own testimony*, as it were, to the wisdom of the Creator, in the *purposive adaptation* of its own structures, *all* created beings unitedly attest the same fact, in the endless illustrations which they furnish of a “Law of Typical Development,” to which they are all unconsciously obedient. On the beauty and appropriateness of these two principles—the principle of *order* and of *special adaptation*—I might and would gladly dwell longer, did time permit; I must, however, pass on to illustrate one of these principles, so must close this part of the subject with a brief extract from a very interesting work, in which this subject is very fully discussed, and which is the joint production of a learned divine and of a teacher of comparative physiology.

“We do not know whether to admire most the all-pervading order which runs through the whole of nature—through all the parts of the plant and animal, and through the hundreds of thousands of different species of plants and animals—or the skilful accommodation of every part and of every organ, in every species, to the purpose which it is meant to serve. The one leads us to discover the lofty wisdom which planned all things from the beginning, and the enlarged beneficence reaching over all, without respect of persons; whereas the other impresses us more with the providential care and special beneficence which, in attending to the whole, has not overlooked any part, but has made provision for every individual member of the myriads of animated beings.”*

In endeavouring to illustrate the principle of purposive or special adaptation, I thought I might best do so in a popular manner, by directing your attention to an animal of remarkable and peculiar habits of life, and then point to the constructive wisdom displayed in the corresponding modifications of its vital organization.

I must mention that the animal I am about to describe has given rise to much discussion amongst naturalists, as to its proper place in the animal kingdom; from its habits, which I will presently mention, it is really and truly amphibious. It is commonly known as the *Lepidosiren*, whilst Prof. Owen has given it the name of *Protopterus*, from the rudimentary condition of its extremities. Two species have been found, the difference between them, however, being very trifling: one in the Amazon by Dr. Natterer, a German naturalist—the

Lepidosiren Paradoxa; the other in the Gambia—*Lepidosiren Annectens*, first described by Mr. Weir, but subsequently more completely and minutely described by Prof. Owen.* The specimen on the table is the *Lepidosiren Annectens*, which was brought from the Gambia, and presented to Dr. Robert MacDonnell by a former pupil of his and mine, Mr. Davis, a surgeon in the Royal Navy; a very fine specimen may also be seen in the gardens of the Royal Zoological Society, Phoenix Park, which was presented to the society by Dr. Carte.



RESPIRATORY AND CIRCULATORY APPARATUS OF THE
LEPIDOSIREN ANNECTENS, AFTER OWEN.

Explanation of Figure.

- No. 1, 2, 3, 4, 5, branchial arteries and gills.
B, The great trunk from which they arise, and which springs from the ventricle.
a, a, Aortic arches uniting to form the aorta, as in fishes.
b, b, Pulmonary arteries uniting to form a single artery, which subsequently bifurcates, and goes to either lung.
c, c, The lungs.
c, The inferior vena cava.
V, V, The pulmonary veins by which the arterialised blood is returned to the auricle.

The *Lepidosiren* presents an elongated form; its head resembles a fish, it has an operculum and well-developed gills, whilst its body is clothed with cycloid scales; its tail, however, is not piscine, but tapers to a point, as in reptiles, whilst its filiform diverging appendages analogous to extremities, are certainly not like fins. This creature, we are told, inhabits a part of the river, (the Gambia,) which in the rainy season overflows

* *Vide* “Typical Forms and Special Ends in Creation,” by the Rev. James M’Cosh, LL.D., and George Dickie, M.D., page 439.

* Transactions of the Linnæan Society, vol. xviii.

large tracts, which again become dry in the dry season. The *Lepidosirens*, which happen to be left on the exposed surface, burrow into the mud, which is soon baked dry around them; a communication, however, is left for the entrance of air; and coiled up in this retreat the animal awaits, in a state of torpor, the return of the waters; when this occurs the mud becomes softened, and escaping from their mud caves, they resume their vigorous and active habits.

It is interesting to examine into the arrangements in their organization, by which this creature is enabled to adopt this strange amphibious life, for this imprisonment in the mud is not a matter of a few days' duration only, but lasts usually for six months, so that for one half of the year the *Lepidosiren* may live by means of aquatic respiration, like a fish, whilst during the other half he breathes atmospheric air. We find therefore, as we might expect, a double respiratory apparatus, viz., gills and lungs; the gills (see fig.), in their general arrangement and appearance, are like those of the osseous fishes, and to these the blood is distributed by the usual number of *branchial arteries* (Nos. 1, 2, 3, 4, 5, 6), which are given off in the usual manner, like arches, from a single trunk, B, which arises from the single ventricle of the heart; but in normal fishes, if we may so call them, when aerated water is no longer supplied, and the gills are unable to act, the circulation must necessarily be arrested, as all the blood has to pass through the minute capillary branches of the branchiæ. Now, in the *Lepidosiren* we find the following special arrangement: the second and third branchial arches (2 and 3) do not develop gills; they are gill-less; and the second and third branchial arteries consequently pass on to join the aortic arches (a, a,) without undergoing any subdivision. Close to the point of union of these branches with the aortic arches, the pulmonary arteries (b, b,) are given off from the latter, and pass to the rudimentary lungs.

Now, when from the absence of water the circulation through the gills is arrested, the blood which passes through the second and third branchial arteries (2 and 3) is transmitted by the pulmonary arteries (b, b,) to the lungs, where it is aerated as in ordinary atmospheric respiration. True, only a small proportion of the blood is thus acted on, less perhaps than one-sixth of the whole, but in the torpid state of the animal (similar as we may suppose to hibernation in certain mammalia), this is amply sufficient for the wants of the system. With the resumption of aquatic life branchial respiration and circulation are renewed, and the more energetic actions of the animal are resumed.

I must now briefly describe the pulmonary organs of the *Lepidosiren*:—These are two elongated sacs, with numerous *foveæ* or depressions on their inner surfaces, which are the earlier rudiments of that minute subdivision into cells which characterizes the more complex lung of the

higher classes of animals. Careful investigation has shown that these organs are modifications of the swim bladder of the fish; and it is most interesting to observe the gradual changes by which an organ, mainly subservient in one class to a mechanical purpose, becomes, in another, transformed into one capable of effecting the most important of the vital functions. I can but very briefly allude to this. In the majority of the fish class the swim bladder is a shut sac, having no communication with any outlet, the air it contains being probably secreted by its lining membrane. In the herring, however, we find it opening into the stomach by a short wide tube, the *Ductus Pneumaticus*. In another family (*Cyprinidæ*) to which the carp belongs, this opens into the œsophagus, on the dorsal or vertebral aspect of that tube. Next we find that, in the *Erythrinus*, the communication takes place higher up, and into the side of the œsophagus; and at last, in the *Polypterus*, one of the Ganoid group, it opens, as likewise in the *Lepidosiren*, into the under surface of the œsophagus, high up near the pharynx. To maintain its patency the opening is cartilaginous, and that cartilage is undoubtedly the earliest rudiment of a larynx, whilst the *Ductus Pneumaticus* has plainly become the homologue of a trachea. In addition, the swim bladder, which was single, has now become a double organ by a vertical partition, and thus we arrive at a double respiratory organ, which, however, does not attain its full development until we examine it in the higher vertebrata.

Without entering into the controversy as to the class to which the *Lepidosiren* belongs, there can be no difficulty in recognizing it as forming a connecting-link between fishes and reptiles. Another link has long been recognized in those fish-like *Batrachia*, known as the *Perenni Branchiata*, of which the *Proteus*, *Siren*, and *Axolotl* are remarkable examples. In these the well-known metamorphosis of the proper *Batrachia* seems, as it were, arrested. The individuals of the *Batrachian* order—as the frog, toad, and newt—when hatched from the ova, have a fish-like form, and external gills for aquatic respiration; at the same time they possess the hidden organization of a higher type. Presently extremities shoot out, growing, apparently, at the expense of the tail, which rapidly diminishes. The gills now shrink and disappear (hence the name *Caduci Branchiata*), and the fully-developed *Batrachian* becomes an air-breathing reptile. In the *Proteus*, *Siren*, and *Axolotl*, this metamorphosis seems as if checked; water is their proper element, and they retain permanently the external gills, which the *Batrachia* only possess in their tadpole condition; hence the name *Perenni Branchiata*, applied to this group. With these creatures the *Lepidosiren*, it would appear, cannot be classed, when its whole organization is carefully examined; and if it must be referred either to the *Reptilia* or to the *Pisces*,

the mass of evidence, according to Owen, strongly preponderates in favour of its piscine character. We can only briefly sum up the reasons assigned by Owen for this decision, and which are the following:—Its unossified vertebral centres; the attachment of the scapula to the occipital bone; the chance of a pancreas; the existence of a spiral intestinal valve; and lastly, the nasal cavities being *cul de sacs*, and not communicating with the mouth. The latter, which might appear to be a trifling circumstance on which to base a difference of class, is really the one on which Professor Owen lays most stress, as indicative of the Ichthyic nature of the Lepidosiren; for whereas some exceptions might be found with reference to the other distinctions enumerated, he speaks thus emphatically on the last point:—"In *every* fish the nasal cavity is a shut sac, communicating only with the external surface; in *every* reptile it is a canal, with both an external and an internal opening."

To sum up, therefore, we would say, that the interval between reptiles and fishes is so filled up by creatures possessing mixed characters, that we pass by almost imperceptible gradations from one to the other. We have *reptilian fishes* and *fish-like reptilia*; and so a double link can be demonstrated—one, the Lepidosiren, on the side of the fish class, a reptilian fish; the other on the reptile side, represented by those fish-like reptilia, the Proteus, Siren, and Axolotile; and yet the distinctions between all are justified by an examination into the vital organization of each.

Having spoken thus much of anatomy and physiology, and of comparative anatomy, and of their mutual dependencies, I must not allow the student to think that if he cultivates these sciences diligently, he need do no more. I do not forget that I am also a teacher of clinical medicine, and therefore I may speak with some authority when I say, that no matter what branches of knowledge you acquire, nor how thoroughly you may master them, you will not be fit for the duties of your profession, unless you closely and continuously attend to the clinical study of disease in the medical and surgical wards of an hospital. Here, observation, experience, and analysis, the three instruments with which—according to Lord Bacon—we are to interrogate nature, find their highest illustrations. Nor is this advice altogether irrelevant to the subject of anatomy; for as by dissection you lay the foundation of anatomical knowledge, so by the clinical study of disease, is the foundation of practical knowledge acquired. It is, we are told, "a kind of *vital* dissection, during which the mind dissects disease, resolving it into signs and symptoms, as the anatomist resolves a part into its tissues; but it is so much more difficult than, and superior not only to, anatomy, but to every other branch of medical science in this respect, that at every step the higher faculties of the mind are called into exercise."

And, gentlemen, students of medicine, having

shown you, I trust, that the profession you have adopted is one which has kept pace with the general advance of scientific progress, I have further to congratulate you on the increasing estimation in which medical services are held, as evidenced by the improved condition of the medical officers of the army, and by the interest which the government have shown in the great question of medical education and medical qualification. The Medical Council will soon be engaged in the consideration of these important questions, and we may feel confident that the interests of this school will not be neglected, while the Regius Professor of Medicine, and Dr. Apjohn, are members of that Council. Let me also express the hope that the interests of the lecturers in the private schools will be carefully considered by the Council. From an experience of sixteen years I can truly say, that no gentlemen could more conscientiously have discharged their duties than they. And it is greatly to their credit, that with no control but a sense of honour and *self-imposed* duty, they should have so efficiently and so successfully promoted the great cause of medical education. It will be a wise and considerate policy for the Medical Council to foster and encourage these schools; and I will mention one fact, which furnishes in itself an argument for doing so, and I mention it with the more pleasure, because it is honourable to the Richmond School, viz., that that school, which has for some years borne the honoured name of Mr. Carmichael, has furnished no less than four of the present professors of the School of Physic. It is only necessary to mention the names of three of these, viz., the King's Professor of the Practice of Medicine, the Professor of Midwifery, and the Professor of Surgery. And in leaving old friends, with whom I have co-operated happily and cordially for many years, I have the pleasure of becoming again associated with those who, for their talents and conspicuous fitness, were selected for the distinguished positions which they now so worthily fill.

In conclusion, gentlemen, I have only to hope that the arrangements which have been made in the anatomical department will be found advantageous. I will only say for myself, that if I am spared to do so, my best exertions shall be given to forward in every way in my power the interests of my pupils; I owe this to myself, that I may not forfeit the confidence of those whose good opinion I so highly prize; I owe it to the distinguished men who selected me for this office; and I owe it to those to whose unfailing and unchanging friendship I am so much indebted. There are, I am happy to say, many such here to-day; and to them I would take this opportunity of publicly expressing the obligations I am under, and to assure them, that on this eventful occasion, one feeling is predominant—not pride at the position I am placed in, nor any feelings of self-satisfaction at any talents I may be supposed to have possessed—but the warm, impulsive emotions of a grateful heart.

Steevens' Hospital.**NOTES OF SURGICAL CASES.**

By SAM'L. A. CUSACK, M.B., F.R.C.S., M.R.I.A.,
Surgeon to, and Lecturer on Clinical Surgery and
Physiology, at Steevens' Hospital.

Case of Laryngotomy, in which Dr. Marshall Hall's method of restoring suspended respiration was successfully practised.

On the 23rd of June, 1858, I was requested by Dr. Croker to examine a patient of his in No. 13 Ward, named Michael Byrne, who had been suffering for some days from dyspnoea, occasioned by scrofulous ulceration of the larynx. On inquiring into the history of the case, I was informed by Dr. Croker that he had come into hospital two months before, complaining of hæmoptysis and other symptoms of pulmonary consumption, and that during the last few weeks the disease had appeared in the larynx, as indicated by alteration in the voice, by increased cough, and by difficulty in speaking and swallowing. About the same time the cervical glands began to be hard and swollen, and appeared to increase his dyspnoea, by causing considerable tension of the fascia on either side of the larynx. When I saw him, his respiration was very difficult; and on examining the submaxillary regions, I found there was considerable swelling on either side of the larynx, but more particularly on the left side, where there was, in addition, an obscure sense of fluctuation. At Dr. Croker's suggestion I divided the fascia in this spot, and let out a small quantity of curdy matter, which had the fetid odour characteristic of suppuration in the vicinity of a mucous canal. The dyspnoea was relieved to a great degree by the opening of this abscess, but on the following day it became difficult again, though there was a free discharge from the opening, into which a probe could be passed as far as the cartilages of the larynx. It now became evident, that in addition to ulceration of the larynx, œdema of the glottis was present; we therefore made an attempt to apply a strong solution of nitrate of silver to that part, but it caused such a violent attack of cough and dyspnoea that the patient would not allow of its free application, even if it had been thought prudent to persist. He was directed to inhale the vapour of warm water, and a few leeches were applied to either side of the larynx. He continued much in the same state, his pulse being strong, and respiration slow and oppressed, until evening, when the dyspnoea became suddenly very urgent, and I was sent for. On arriving in the ward I found him supported in the bed, drawing in his breath with a loud gasping noise, and with such extreme difficulty, that it was evident that he could not live many minutes unless an opening were made below the obstruction, and accordingly I proceeded to open the larynx in the usual way.

The irritation of the first incision, or possibly the position in which the head was necessarily placed to facilitate the operation, caused, however, such violent laryngeal spasm, that before the operation was completed the patient had ceased to breathe, and on dividing the cryco-thyroid membrane, only a small quantity of air passed into the lungs (which were then empty, as much as they can be in ordinary breathing), and there was no attempt at expiration. Under these circumstances, I at once dilated the wound with an instrument which I shall presently describe, and with the assistance of the resident pupil on duty, Mr. Holmes, I drew away the pillows from under his shoulders, and turned him first on his face, and then three parts over on his back. This proceeding was repeated six or eight times in the minute (on each occasion the air being heard to pass in and out of the wound) for about two minutes, when he opened his eyes, which had been closed, and during the interval of one of the postural movements, made a spontaneous attempt at inspiration. After repeating the movements a few times, he was able to breathe without assistance, and his pulse, which could not before be felt at the wrist, returned. He made signs for a drink, which he now took freely, not having been able, for some days, to swallow more than a few drops at a time, and presently fell asleep. Next morning, when seen by Dr. Croker and myself, he was breathing tranquilly through the wound. He continued to do well for some time, but was never able to speak or breathe through the glottis when the wound was closed. On the 28th of June inflammation commenced in the trachea and bronchi, and soon passed on to the smaller air-tubes, and he died on the 2nd of July.

On examining him after death, we found ulceration of the larynx, with a sinus passing to the incision which I had made in opening the abscess in the first instance. There was also complete closure of the glottis, from œdema of the surrounding submucous tissue. The immediate cause of death had been bronchitis engaging the smaller air-tubes.

The principal point of interest in the above case was the establishment of artificial respiration by Dr. Marshall Hall's method. To its great efficacy in the present instance I can certainly bear testimony, as compared with insufflation by means of tubes or catheters. As to the precise rules to be observed in practising this plan, they were fully detailed in this and other journals, a short time ago, that any further notice of them would be superfluous.

I may mention another circumstance with reference to the mode in which the wound was kept open—namely, that instead of using the ordinary silver cannula, I tried a small forceps with wide blades, not unlike a Liston's artery forceps, the blades being kept open, instead of shut, by the spring, and which I had procured from Read, of

Parliament-street, a little time ago, for a previous operation of a similar nature. The instrument had been made some time before, for some surgeon in the country, to whom I am therefore indebted for it. Every person who has had occasion to open the larynx, and more particularly those who, like myself, have done so without having witnessed a similar operation before, must have been alarmed by the terrible fit of cough and spasmodic respiration which follows the introduction of the canula into the larynx. By the use of this instrument these dangerous and distressing results are avoided; and the forceps is introduced with the blades closed much more readily than the canula, and therefore a saving of time effected, often of the utmost moment in such a case. A small hole was drilled in the spring end of the forceps, through which a string could be tied, to avoid the dangerous contingency of its slipping into the larynx.

Symes' Operation.

As the question of the propriety of this operation would seem to be still a matter of statistics, the following case will be interesting, as being one in which the operation has terminated most satisfactorily.

Laurence Atkinson, aged 19, became a patient of mine in No. 1 Ward, on the 21st of June last, on account of diseased ankle-joint of very long standing. I find, on looking to my notes of the case, that he had been five years ailing before coming into hospital, and had, during that period, tried every kind of treatment. Subsequently to admission, he was treated after the usual routine, with strapping, iodide of iron, cod-liver oil, &c., without effect; and the astragalus and os calcis could be felt with the probe, through sinuses which existed over several points of the diseased joint, to be soft and carious. It was thought desirable to remove the foot by Mr. Symes' operation, as he had begun lately to fall off in flesh, and was very anxious to have some operation performed.

On the 30th of September I removed the foot in the usual manner, excepting that, instead of dissecting out the os calcis, I cut through it with a saw, for the purpose of ascertaining whether its posterior extremity could be left in the flap, as practised by Perigoff. The cut surface of the astragalus was, however, so soft, that I did not think it prudent to leave it behind; I therefore completed the operation by dissecting it out. The flaps united very rapidly, and some sinuses which had passed through the integuments of the heel soon closed up. His health rapidly improved, and he was discharged from hospital on the 22nd of November. At this time the stump was large and globular, and very elastic, and he could already bear a very considerable amount of pressure on it.

In such a case the only point open to discussion is, whether the operation here performed or the flap operation a little above the ankle-joint, is the

more suitable. In the present instance I should have no hesitation in saying, that the natural pad of the heel will bear any amount of pressure which he may require to put on it; and I do not see that he could have borne the weight of his body better on the circumference of his leg and knee, in the ordinary bucket leg; so that, even if the question is only fairly balanced, there is still the additional advantage of having performed an operation of a minor character, and attended with much less risk than that above the joint.

I have mentioned that before removing the whole of the os calcis, I cut through it, as in Perigoff's operation. I was induced to do so, in the hope that its posterior extremity might not be diseased; and as none of the sinuses passed in that direction, there was no other method of ascertaining its condition. As it turned, however, to be very soft, it appeared more prudent to remove it; and excepting the very trifling loss of time occasioned by sawing through it, I do not think this deviation from the ordinary procedure caused any inconvenience.

Selections from British & Foreign Journals.

ON THE QUESTION OF THE AFFINITY BETWEEN SCARLATINA AND MEASLES.

By DR. KÜTTNER, of Dresden.

That measles and scarlatina, in their symptoms and in their essence, present two well-defined states of disease, is one of the most indisputable facts in pathology. Schönlein, making use of an analogy derived from botanical science, looks on measles as a peculiar exanthematic form of catarrh, and accordingly places it in the family of the catarrhs; whereas scarlatina is placed by him in the group of erysipelatous diseases. Admitting that, in the regular course, such sharply-defined examples of the diseases exist, Dr. Küttner observes, that experience furnishes us with androgynous cases calculated to embarrass even the experienced "diagnostiker." If the diseases were always so well marked as we find them in the hand-books, there would be no difficulty. Sometimes the exanthem bears the character of scarlatina, while the catarrhal irritation of the bronchial membrane, and of the mucous membrane of the nose and of the eyes, indicate the morbillous process; or, on the other hand, the rash of measles is accompanied by vomiting, by a sharp attack of angina, and by the characteristic scarlatina tongue.

We see occasionally, in the same individual, parts of the skin presenting the scarlet-red eruption, while in others the rosy rash of measles exists. We have, then, not merely examples of transition, but we see cases which may be termed hybridous. If we were even disinclined to assign any relationship to the two diseases, arising from the fact of their passing into each other, there is still another observation which shows it in a higher degree—namely, that the same contagious matter appears capable of producing, in different individuals, different diseases: in some measles, in others scarlatina. Many reliable proofs of this are to be found in medical literature, to which the following may be added, as affording good examples. During an epidemic of measles, a boy of sixteen years of age became affected with the disease, which ran a favourable course, and at

the end of three weeks he was sent from Dresden to his father's country house, at some distance from the city. A little sister, two years of age, who visited the brother on the day of the appearance of the rash, although immediately sent away, sickened on the tenth day, presenting the ordinary symptoms of the eruptive fever; in her, too, the disease passed over mildly. A second sister, one of the older members of the family, who had before repeatedly attended upon persons in measles without taking the disease, did not now escape. There yet remained a third sister, who was married, and who had been for fourteen days on a visit at her father's house, but who, from never having had measles, carefully avoided intercourse with the sick and the convalescent, not however guarding against the possibility of transmission through a third person. Without any previous indisposition, sharp febrile symptoms appeared in this case, leading to the belief of the invasion of measles. An intense scarlatinal eruption, however, manifested itself with the characteristic affection of the throat, and with the red tongue. The exanthematic period passed over without any remarkable symptoms, ending in the second week with an extensive exfoliation of the epidermis. No second case of measles or scarlatina occurred in the house.

Although observations such as these have been made by practical physicians, and recorded, still this is worthy of notice, from the concurrent circumstances, and because the course of the disease was so characteristic as to leave no doubt as to the correctness of the diagnosis.

In what relation scarlatina and measles stand to each other, and whether the same contagion can, in reality, produce both forms of disease, we are scarcely in a position to determine. A sceptic will naturally say that the scarlatina of the last-named case was not the product of the contagion of measles, but was developed independently.

Admitting, however, that a direct proof to the contrary cannot be given, the fact nevertheless remains, that no communication from without, capable of conveying scarlatina, took place. Is it in reality so preposterous a notion, that the matter of the exanthematic contagion may act like a ferment, without any specific character, and according to individual disposition, may produce measles in one case and scarlatina in another, as, under similar conditions, the impression of cold may cause in one individual catarrh, and in another, rheumatism?—*Journal für Kinderkrankheiten*.

ASSOCIATION OF THE FELLOWS AND LICENTIATES OF THE KING'S AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

Dr. AQUILLA SMITH, V.P. Coll. Phys. in the Chair.

Wednesday evening, December 1, 1858.

Dr. HENRY KENNEDY made some remarks on the diagnosis of tumors situated in or near the epigastric region. The communication will appear in our next number.

Dr. MOORE gave the details of cases in which the expulsion of tapeworm was effected with Kameela. He described the botanical and physiological properties of this agent, and adduced several authorities confirming his experience of it as a "vermicide;" the value to be attached to the expulsion of the head of the worm; the effect of climate, in some instances, apparently producing parasitic idiosyncrasies; the importance of using well-cooked food, and other treatment to prevent their reproduction.

INDIAN MEDICAL SERVICE.—We have been believing that an increase will shortly take place in the Medical Staff already allowed for service in India, that additions will be made thereto to the number of about five Staff Surgeons, and about fifteen assistant Surgeons.—*Homeward Mail*.

At a recent Meeting of the Commissioners for the City of London, a motion was carried in favour of Mr. Ross, to accept an offer made by the philanthropic Mr. Gurney, to erect a Fountain in the Royal Exchange, and to refer it to a Commission upon other sites throughout the city, where structures might be raised without interfering with traffic in the thoroughfares.

Mr. TEALE's new mode of amputating, by rectangular flaps, is now in course of trial at the Metropolitan Hospitals—St. George's and University College particularly. It is premature yet to give an opinion as to its utility.

SIR BENJAMIN BRODIE, Bart., has been elected President of the Royal Society.

Dr. THOMAS K. CHAMBERS has been appointed to His Royal Highness the Prince of Wales, whom he will accompany to Rome.

MONUMENT TO HUGH MILLER.—At CROMARTY, the birth-place of the "wise stonemason," the foundation stone of this tribute to genius has been laid by the townsmen. It will consist of a pillar five feet high, surmounted by a statue of the geologist. The base will be formed of that old red sandstone so rarely associated with his name and labours. The inscription will be as follows:—"In commemoration of the literary and scientific eminence of HUGH MILLER, this monument is erected by his fellow-countrymen. He was born at Cromarty, the 10th of October, 1808, and died December 24th, 1856."

THE great medical case which has been pending at Paris between the allopathists and the homœopathsists, has terminated to the discomfiture of the latter. The case, in a word, was simply the Union Médicale some time since stigmatised homœopathy as a pretended science, and its professors as charlatans. Upon this twenty-four homœopathsists of Paris brought an action for libel. M. Emile Olivier did his duty, but the court, after a hearing of several days, dismissed their action with costs.

TO ADVERTISERS.

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December 15, 1858.

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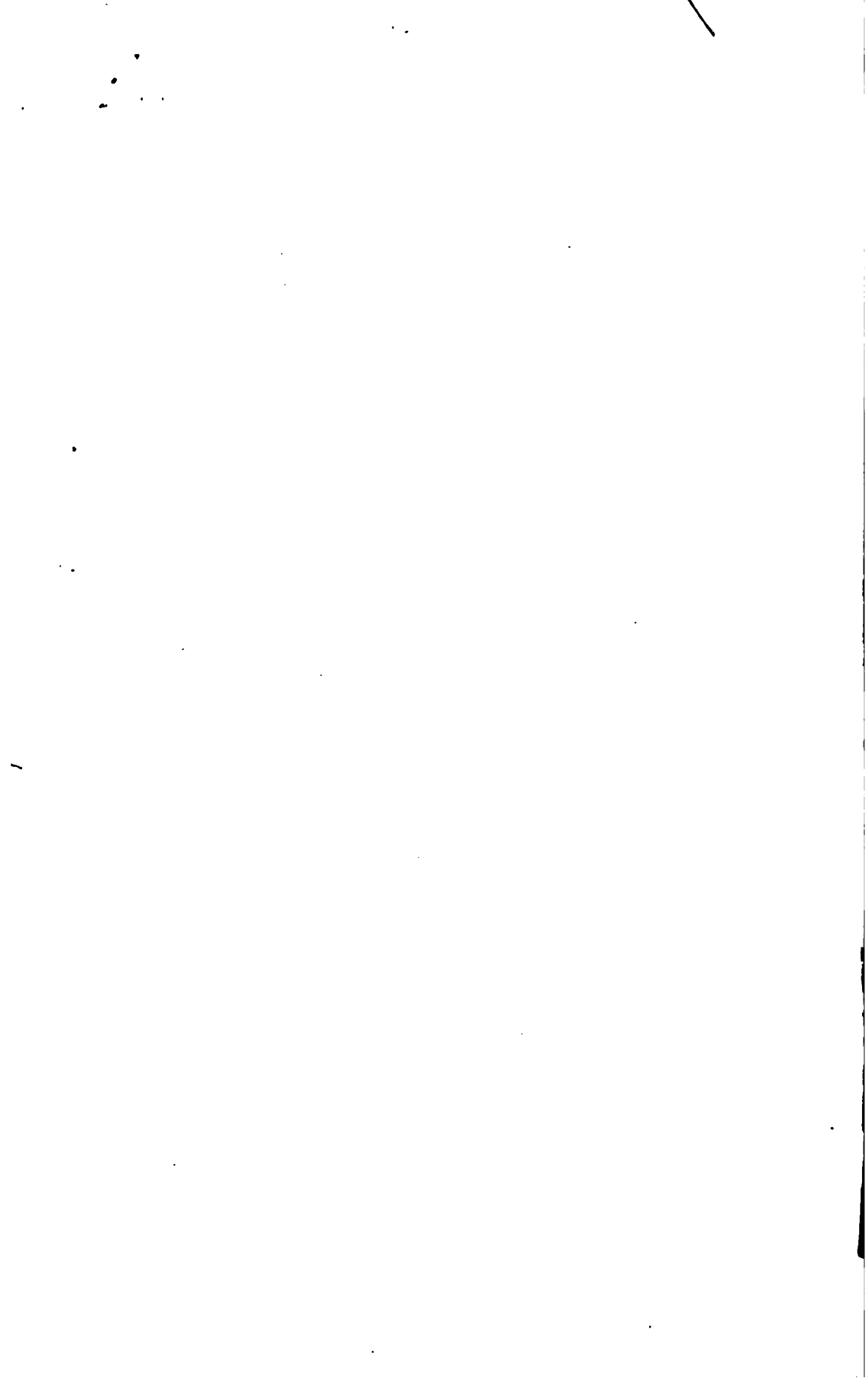
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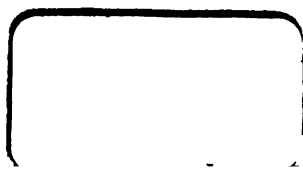
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